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**Decision-making in the planning process and the contribution  
of Environmental Impact Assessment (EIA): a case study based  
comparative analysis of major sports events in Brazil and  
England**

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## **ABSTRACT**

Tourist events, including major sports events and related infrastructure, comprise one of the fastest growing segments of the world tourism market. Despite the growth and popularity of tourist events, one specific aspect of them that has received limited attention from researchers is the subject of environmental impacts. For this reason, the present research investigates the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England.

In order to achieve such an aim, the research process firstly involved the establishment of a theoretical framework which draws upon strands of theories related to the fields of EIA, decision-making and public participation in environmental assessment with the purpose of informing the data collection and data analysis. Secondly, the systems of planning and environmental impact assessment (EIA) in England and Brazil were examined. Thirdly, fieldwork was conducted in both countries, where semi-structured interviews and document analysis were applied in the context of the case studies: Rio 2007 Pan American Games and London 2012 Olympic Games.

The results of the research have demonstrated that EIA and other environmental assessment tools still have a long way to go in terms of being fully considered planning and decision-making tools in the context of major sports events. In addition, the results from the case studies also show that decision-makers do not perceive the real potential of EIA and other assessment procedures either as planning and decision-making tools or as vehicles for social learning and sustainable development. Therefore the lessons learnt from the Rio 2007 Pan American Games and from other experiences elsewhere, such as from London 2012, are vital to improve the planning process and the environmental sustainability of the forthcoming major sports events held in Brazil (the Football World Cup in 2014 and the Rio Summer Olympic Games in 2016).

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## **ABBREVIATIONS**

<b>CONAMA</b>	<b>National Council of the Environment</b>
<b>CONSEMAS</b>	<b>State Councils of the Environment</b>
<b>CO-RIO</b>	<b>Organising Committee for the Rio 2007 Pan American Games</b>
<b>CSL</b>	<b>Commission for a Sustainable London 2012</b>
<b>DCLG</b>	<b>Department for Communities and Local Government</b>
<b>DCMS</b>	<b>Department for Culture, Media and Sport</b>
<b>DEFRA</b>	<b>Department for Environment, Food and Rural Affairs</b>
<b>EIA</b>	<b>Environmental Impact Assessment</b>
<b>EIV</b>	<b>Neighbourhood Impact Assessment</b>
<b>ES</b>	<b>Environmental Statement</b>
<b>FIA</b>	<b>Institute Foundation of Administration</b>
<b>FPM</b>	<b>Federal Public Ministry</b>
<b>GOs</b>	<b>Government Offices</b>
<b>HIA</b>	<b>Health Impact Assessment</b>
<b>IBAMA</b>	<b>Brazilian Environment and Renewable Natural Resources Institute</b>
<b>INEA</b>	<b>State Institute for the Environment</b>
<b>IOC</b>	<b>International Olympic Committee</b>
<b>IPC</b>	<b>Infrastructure Planning Commission</b>
<b>LDF</b>	<b>Local Development Framework</b>
<b>LOCOG</b>	<b>the London Organising Committee of the Olympic Games and Paralympic Games</b>
<b>LPAs</b>	<b>Local Planning Authorities</b>
<b>MMA</b>	<b>Ministry of the Environment</b>
<b>NPSs</b>	<b>National Policy Statements</b>
<b>ODA</b>	<b>Olympic Delivery Authority</b>
<b>ODA CR</b>	<b>Olympic Delivery Authority Community Relations</b>

ODA PC	Olympic Delivery Authority Planning Committee
ODA PDT	Olympic Delivery Authority Planning Decisions Team
OEMAs	State Agencies for the Environment
OPLC	Olympic Park Legacy Legacy Company
OPMP	Olympic Park Master Plan
PPSs	Planning Policy Statements
RPBs	Regional Planning Bodies
RSS	Regional Spatial Strategy
SCs	Statutory Consultees
SEA	Strategic Environmental Assessment
SEMAs	State Secretariats of the Environment
SERIO	Special Secretariat for the Rio 2007 Pan American Games
SISNAMA	National System of the Environment
WWF	World Wide Fund for Nature

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## **1 INTRODUCTION**

### **1.1 Background and significance of the research**

Tourist events, including major sports events and related infrastructure, comprise one of the fastest growing segments of the world tourism market (Funk and Bruun, 2007; Gursoy, Kim and Uysal, 2004; Lee, Lee and Wicks, 2004), making this sector one of the most important economic activities in the world. Major sports events such as the Olympic Games and the Football World Cup are categorized as 'hallmark' or mega-events (Kim, Gursoy and Lee, 2006). Hall (1989, p. 263) defines mega-events as 'major fairs, expositions, cultural, and sporting events of international status which are held on either a regular or one time basis'. For Ritchie (1984, p. 2) the term hallmark event refers to 'major one-time or recurring events of limited duration, developed primarily to enhance the awareness, appeal, and profitability of a tourism destination in the short and/or long term'.

The desire to undertake a PhD research on major sports events is a result of a previous Masters research conducted in Brazil on environmental issues and planning processes of a local tourist event. Based on this previous experience, it was possible to conclude that the issue of environmental considerations and planning processes of tourist events needs further research in order to explore it from different perspectives. With this intention in mind it was thought that the best option would be to undertake a PhD abroad examining such a theme. To make the PhD project viable, it was decided to apply for a scholarship offered by one of the top research funding agencies in Brazil and after a rigorous selection process that took nearly one year and involved over 600 applicants the researcher was granted a scholarship to undertake a PhD at Oxford Brookes University.

In the present research the focus is on the investigation of the decision-making in the planning process and the contribution of Environmental Impact Assessment (EIA) in the context of major sports events and their associated infrastructure. Because this research is funded by the Brazilian government it

was important to link the study with the Brazilian context as well. For this reason, the major sports events chosen as case studies for the present research are the London 2012 Olympic Games and the Rio 2007 Pan American Games, which are the basis for the comparative analysis provided in the thesis. The intention here is to learn lessons that could help the Brazilian context to improve the environmental sustainability of its major sports events. This is particularly appropriate at present as Brazil is set to host two international major sports events: the Football World Cup in 2014 and the Summer Olympic Games in 2016.

In terms of research, on one hand, the body of work on tourist events, including major sports events, from 2000 to date has been focused on: host community perceptions of impacts (Ma *et al.*, 2011; Lorde, Greenidge and Devonish, 2011; Zhou and Ap, 2008; Kim, Gursoy and Lee, 2006; Gursoy and Kendall, 2006; Kim and Petrick, 2005); crowding models (Lee and Graefe, 2003); image of destination (Kim and Morrisson, 2005; Lee, Lee and Lee, 2005); organizers' perceptions of impacts on host communities (Ma *et al.*, 2011; Gursoy, Kim and Uysal, 2004); motivations to attend events (Funk and Bruun, 2007; Chang, 2006; Kim, Gursoy and Lee, 2006; Kim, Borges and Chon, 2006; Kim and Chalip, 2004; Lee, Lee and Wicks, 2004) and economic impacts (Daniels, 2007; Lee and Taylor, 2005).

On the other hand, the literature on EIA and mega-projects tends to concentrate on large development proposals, such as those related to infrastructure projects (e.g. energy, transport, water, waste, etc), providing limited reference to major sports events and their associated infrastructure, which suggests that there is not much research undertaken on major sports events and their related infrastructure in the context of mega-projects and EIA. The literature found on the implementation of the associated infrastructure of major sports events is usually connected to the construction of venues and sports facilities, such as the Olympic Stadium (Proceedings of the Institution of Civil Engineers, 2011a; Reid, 2011; Lan, 2009); the velodrome (Proceedings of the Institution of Civil Engineers, 2011b; Lan, 2009); the aquatics centre (Proceedings of the Institution of Civil Engineers, 2011c; Lan, 2009), development of other projects

related to major sports events, such as utilities (Proceedings of the Institution of Civil Engineers, 2011d); parklands and waterways (Proceedings of the Institution of Civil Engineers, 2011e); structures, bridges and highways (Proceedings of the Institution of Civil Engineers, 2011f), and construction and management of transport (Currie and Shalaby, 2012; Minis, 2008; Chinese Law, 2008a; Chinese Law, 2008b).

Despite the limited reference to major sports events and associated infrastructure in the EIA and mega-projects literature, it is undeniable the growth and popularity of sports events as well as the increasing amount of research linked to them and tourist events in general. However, Ma *et al.* (2011) argue that research on event impacts has frequently been focused on the economic dimension rather than on the social and environmental dimensions, which have received limited consideration from researchers.

Within this perspective, one specific area that has received limited attention from researchers is the subject of environmental impacts. In particular, the literature on tourist events, major sports events, EIA and mega projects is scarce in terms of the contribution of EIA to the decision-making in the planning process in the context of major sports events and their associated infrastructure. In response, a gap in knowledge has been identified meaning that there is plenty of room for research that investigates different aspects of the interface between EIA, decision-making and planning processes of major sports events and related infrastructure.

## **1.2 Research question, aim and objectives**

The research question of this study is as follows:

**Research question:** How important are environmental issues in the decision-making in the planning process of major sports events and related infrastructure?

In order to answer the research question stated above, the following aim and objectives are pursued:

**Aim:**

To analyse the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England.

**Objectives:**

**Objective 1:** To provide a comparative critique of the planning and environmental impact assessment systems in Brazil and England to understand what these systems seek to deliver with particular reference to major sports events and associated infrastructure;

**Objective 2:** To examine the implementation process of EIA regulation, which corresponds to the implementation phase of the planning, in the contexts of a Brazilian and an English major sports event;

**Objective 3:** To identify and compare major problems and success factors with regard to EIA and decision-making in the contexts of a Brazilian and an English major sports event;

**Objective 4:** To examine the extent to which lessons may be learnt from the English and Brazilian experiences on major sports events for the Brazilian context as well as elsewhere.

### **1.3 Research strategy**

This research has employed a qualitative approach (with a mix of desk based study and fieldwork) based on a case study strategy with the purpose of investigating the research topic in its real life context. Major sports events and related infrastructure were chosen as case studies for this research because

they represent an under-researched field from the perspective of the interface between EIA and decision-making in their planning processes. The presence of associated infrastructure within the scope of major sports events was also another criteria for their choice as the related infrastructure requires the conduct of environmental assessment procedures, such as EIA. The case studies selected were the London 2012 Olympic Games in England and the Rio 2007 Pan American Games in Brazil.

Along with a case study strategy, a combination of methods was adopted to gather data since no single method would be able to provide the evidence needed to answer the research question and achieve the research aim and objectives. The set of methods used was composed by semi-structured interviews with key actors in order to get their perceptions of EIA and decision-making in the context of London 2012 and Rio 2007 and document analysis based on official documents obtained from the government, delivery bodies, EIA consultancies, NGOs in Brazil and England.

The data collected during the fieldwork stage from both cases through the semi-structured interviews were analysed using a content analysis approach based on a coding technique. For this, the interviews, which were recorded, were transcribed and then coded manually. The data gathered from the review of official documents as part of the desk based study stage was analysed using a document analysis technique. By combining the findings from the interviews with those of the document analysis, degrees of triangulation were achieved, which provided a deeper understanding of the decision-making in the planning process and the contribution of EIA in the context of the case studies.

Although the description of the research strategy may refer to a linear process, the task of undertaking a research reveals a much more dynamic process. Throughout the conduct of the research challenges arose, which led to changes in order to accommodate the issues experienced in this dynamic process. As examples of changes in the methodology as the research evolved are the strategic environmental assessment (SEA) and collaborative planning. The original intention in this research was to examine EIA and SEA side-by-side.



However, this plan changed after the conduct of the fieldwork in Brazil due to two main reasons. Firstly, as the country has not yet set out a regulatory framework for SEA, a comparative analysis of policy and practice was not possible and secondly, Brazilian research participants were not able to answer the questions about SEA in the interviews. For these reasons, it was decided to focus the comparative research on EIA, which had been carried out in the context of both case studies and generated rich data through the conduct of the interviews. Despite not being part of the thesis as a whole, SEA is considered as part of a wider reflection and recommendations in chapter 9 (Conclusions).

The analysis of collaborative planning is another example of change experienced in the course of this research. It was after undertaking the fieldwork in Brazil and a preliminary analysis of the data collected (which revealed a non-collaborative approach) that collaborative planning was brought to the methodological discussion. However, it was only after completing the fieldwork in England (which generated findings in line with the collaborative perspective) that the intention of analysing the theory of collaborative planning was consolidated. The assumption was that collaborative planning could provide a useful framework to analyse and compare the differences between the non-collaborative and collaborative findings from the Brazilian and English case studies. Based on this, it was decided to apply the collaborative approach to inform the analysis of the research findings. Therefore, the discussion of the findings provided in chapter 8 is also made in the light of collaborative planning. The research strategy is explained in detail in chapter 3.

## **1.4 Structure of the thesis**

This thesis is structured into nine chapters and the contents of each chapter are summarized below:

**Chapter 1: Introduction.** This chapter introduces the thesis by presenting the background and significance of the research; the research question, aim and objectives; the research strategy and the structure of the thesis.

**Chapter 2: Establishing the theoretical framework for the research.** This chapter provides the theoretical framework for the research by drawing upon elements from different branches of theory related to EIA, decision-making and public participation in environmental assessment. The theoretical framework also sets the background for chapters 4 and 5, which offer a comparative critique of the planning and environmental impact assessment systems in Brazil and England, whilst informing the analysis of the research findings provided by chapter 8. This chapter starts with EIA theory and decision-making then moving to public participation in environmental assessment, which reflect the framework used to conduct the research. In the final section of the chapter, a diagram is presented with the purpose of explaining the four dimensions of the research: contextual, theoretical, analytical and empirical.

**Chapter 3: Research methodology.** This chapter establishes the methodology to investigate the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England. The chapter starts by presenting the research approach and some philosophical issues underpinning it. Following this, a set of related research methods to collect and analyse data has been developed to address the research question, aim and objectives.

**Chapter 4: Planning contexts in England and Brazil.** This chapter outlines the planning contexts in England and Brazil by exploring their regulatory frameworks in terms of key planning agencies and documents, while also examining both planning systems in relation to their approaches and constraints. The chapter starts by presenting an overview and some brief historical aspects of the urban planning in Brazil. This is followed by an introduction to the key planning agencies and documents at national, regional and local levels in England and Brazil. It should be noted that the English planning system has changed as a result of the Planning Act 2008 and that it is currently being reformed in line with the agenda of the government elected in 2010. Although the planning system has changed, the description provided here relates to the system (Planning and Compulsory Purchase Act 2004) under which the London 2012 Olympic Games case study was conducted. Finally the chapter provides a

comparative critique of the English and Brazilian planning systems with regard to their approaches, public participation and constraints.

**Chapter 5: Environmental Impact Assessment in England and Brazil.** This chapter aims to present and compare the systems of environmental impact assessment in England and Brazil. The framework used to provide the comparison between the two systems is structured around the following elements: a) origins, definitions and the process; b) legal framework; c) weaknesses; d) consultation and participation; and e) other impact assessment tools. Following this framework, the chapter starts by reviewing some key definitions of EIA, its origins and the main steps of the process. Next, this chapter explores the legal context of England and Brazil in terms of EIA regulations and institutions then moving to weaknesses identified in the scope of the two systems. Finally, consultation and participation in environmental impact assessment in England and Brazil as well as other impact assessment tools are compared in the context of both countries.

**Chapter 6: Brazilian case study – the Rio 2007 Pan American Games.** This chapter presents a synthesis of the data collected from the interviews conducted with key stakeholders involved with the Rio 2007 Pan American Games, the Brazilian case study. The themes discussed in this chapter are based on both the categories and sub-categories of the analytical framework and of the codes that emerged from the interviews. The themes are as follows: a) environmental impact assessment: environmental licensing and EIA; use of other environmental assessment tools; environmental licensing, EIA and other procedures in the planning process of major sports events and related infrastructure; implementation and enforcement of environmental licensing and EIA regulations and decisions; b) decision-making process: relationship between federal, state and municipal levels of government; weight of environmental issues; environmental licensing, EIA and other procedures in the decision-making process of major sports events and related infrastructure; public consultation; Rio 2007 as a preparation for hosting the Olympic Games; concentration of Rio 2007 in *Barra da Tijuca*; legacy of the Games. The themes and related findings presented in this chapter are further discussed against the

theoretical framework in chapter 8, where a comparative analysis between the findings of the two research case studies is provided.

**Chapter 7: English case study – the London 2012 Olympic Games.** This is the second empirical chapter of the thesis and it concentrates on the presentation of the data collected from the interviews with key stakeholders from the English case study, the London 2012 Olympic Games. The structure of this chapter follows the same pattern as the previous one. It begins by examining environmental impact assessment then moving on to the decision-making process. The themes within the category of environmental impact assessment discussed in this chapter are as follows: EIA and the use of other environmental assessment tools; changes in projects due to EIA; EIA and other procedures in the planning process of major sports events and related infrastructure; implementation and enforcement of EIA regulations and decisions. Concerning the category of decision-making process, the following themes are examined: relationship between key stakeholders; Commission for a Sustainable London 2012; engagement with environmental NGOs; weight of environmental issues; public consultation; changes in projects due to public consultation; legacy of the Games. The themes and related findings presented here are further discussed against the theoretical framework in chapter 8, where a comparative analysis between the findings of the two research case studies is provided.

**Chapter 8: Comparing and contrasting the Rio 2007 Pan American Games and the London 2012 Olympic Games in the light of the theoretical framework.** This chapter provides a comparative analysis between the findings of the Rio 2007 Pan American Games and the London 2012 Olympic Games against the theoretical framework developed in chapter 2. In chapters 6 and 7, the findings of the Brazilian and English case studies were examined individually. Based on the findings from those chapters (6 and 7), two conceptual models for each case study have been drawn with the purpose of guiding the discussion of the research findings along with the theoretical framework developed in chapter 2. The structure chosen to lead the discussion of the findings in the present chapter follows a similar pattern adopted to

present the findings in chapters 6 and 7. Within this, the chapter starts by discussing themes related to environmental impact assessment then moving on to the decision-making process.

**Chapter 9: Conclusion.** This is the final chapter of the thesis and draws the research to an end. Chapter 8 has drawn the comparisons between the findings against the theoretical framework developed in chapter 2. Therefore, it is not the intention here to repeat the discussion of the findings provided in the preceding chapters, meaning that this chapter is intended to present a brief concluding statement for the thesis. The concluding statement also answers the research question and addresses the aim and research objectives. This is followed by an evaluation of the research methodology used and a set of recommendations for major sports events and related infrastructure to strengthen the consideration of environmental assessment procedures in their planning processes. Finally this chapter concludes with recommendations for further research and with a summary of the original contribution to knowledge.

## **2 ESTABLISHING THE THEORETICAL FRAMEWORK FOR THE RESEARCH**

### **2.1 Introduction**

This chapter provides the theoretical framework for the research by drawing upon elements from different branches of theory related to EIA, decision-making and public participation in environmental assessment. As discussed in the research strategy (see chapter 1, section 1.3), the methodological changes throughout the research process were accommodated in order to potentiate their benefits for the study. Such changes were also reflected in the theoretical framework. As a consequence, collaborative planning was incorporated in the research after the completion of data collection as a useful approach to inform the analysis of the findings. For this reason, the theoretical framework refers to collaborative planning as well in order to provide the collaborative context for the discussion of the findings in chapter 8. The theoretical framework also sets the background for chapters 4 and 5, which offer a comparative critique of the planning and environmental impact assessment systems in Brazil and England, whilst informing the analysis of the research findings provided by chapter 8. This chapter starts with EIA theory and decision-making then moving to public participation in environmental assessment, which reflect the framework used to conduct the research. Collaborative planning is introduced throughout the discussion of those key themes. In the final section of the chapter, a diagram is presented with the purpose of explaining the four dimensions of the research: contextual, theoretical, analytical and empirical.

### **2.2 Environmental Impact Assessment (EIA) theory and decision-making**

The first EIA system was officially introduced in the United States in 1969 through the National Environmental Policy Act (NEPA), in response to a wide range of social, political and economic changes in Western societies in the post-World War II period (Caldwell, 1988; Cashmore, 2004). Such changes led to a growing public concern regarding environmental issues and to the arising of pressure groups, particularly in the 1960s, a time when serious environmental

damage caused by human activities and environmental controversies in relation to oil spills and nuclear fallout were becoming increasingly visible (Jay *et al.*, 2007; Caldwell, 1988). Within this context, EIA emerged as a decision-making tool (Weston, 2004) whose substantive purpose, according to Caldwell (1988, p. 75), creator of NEPA, 'was to protect the public and the environment from the consequences of reckless or inadequately informed policies and decisions'.

NEPA is regarded a key legislation in terms of EIA, not only because it was the first to set up the EIA system but also because it anticipated and articulated issues related to sustainable development at a time when the official definition of sustainable development had not yet been established (Sadler, 1996; Cashmore, 2004). For Cashmore (2004, p. 404) NEPA was 'innovative, visionary'; for Glasson, Therivel and Chadwick (2005, p. 28), it was 'unique'. As a consequence, NEPA has become a central model for other EIA systems which have spread across the globe (Glasson, Therivel and Chadwick, 2005; Cashmore, 2004; Benson, 2003).

According to Caldwell (1988) one of the key influences in the development of EIA has been rational planning theory. Following this premise, Rodgers (1976 cited in Weston, 2004, p. 314), by reviewing the introduction of EIA in the USA, claims that NEPA originated 'an objective, rational and procedural-based process', which largely resembles the principles set out by rational planning theory. Therefore, EIA emerges first as a procedure imposed by legislation whilst its theoretical foundations were developed later (Cashmore, 2004).

With regard to the theoretical background, EIA has strong links with planning theory (Weston, 2010; Glasson, Therivel and Chadwick, 2005; Caldwell, 1988). This means EIA theory also draws upon a broad theoretical base similar to that on which planning theory has been based (e.g. systems, rational comprehensive, communicative, neo-pragmatic).

Allmendinger (2009) indicates that until the early 1980s the dominant typology of planning theory was based on systems and rational approaches and it was within this 1960s dominant perspective in planning that the theoretical

foundations of EIA were rooted (Weston, 2010; Jay *et al.*, 2007; Wood and Becker, 2005). Therefore, EIA is built on the rational model of planning and decision-making that implies that the use of a systematic process and the scientific methods adopted by experts would lead to better decisions (Weston, 2004; Wallington, Bina and Thissen, 2007).

The general aim of EIA is to provide decision-makers and the broader public with an assessment of the likely significant environmental effects of major development proposals (Wood, 2008; Jay *et al.*, 2007; Weston, 2004). Within this context, EIA is usually seen as a tool to inform decision-making in relation to decisions about project authorisation and also for development design (Cashmore *et al.*, 2004). However, it should be highlighted that the view of EIA as a decision-informing tool may vary according to different authors. For instance, Benson (2003) and Cashmore (2004) indicate that opinions differ regarding EIA as a decision-informing or decision-making tool. Weston (2000) supports the decision-informing premise by claiming that EIA should not be characterised as a decision-making process in itself but as a tool that helps to inform decision-making. Similarly, Glasson, Therivel and Chadwick (2005) indicate that one of the purposes of EIA is to be an aid to decision-making and not a substitute for decision-making.

Regarding this issue, Elling (2009) goes further by proposing a clear separation between the assessment process and the decision-making process in order not to mix them (although recognising they are connected). In accordance with his argument, the information provided by the assessment process should be about more than reaching a decision on the best way to implement a proposal or balancing pros and cons; it should be an illumination of all likely aspects of a proposed action, submitted in its full extent to decision-makers with the purpose of informing the decision-making process (Elling, 2009).

In contrast, Jay *et al.* (2007, p. 293) argue that the apparent 'insistence' on placing EIA as a decision-aiding tool rather than decision-making represents a limitation since it transfers a high level of trust to decision-makers who are expected to act in line with the environmental information provided to them.



According to Benson (2003), it is necessary to recognise explicitly that decisions are made throughout the EIA process in terms of screening, scoping, consideration of alternatives, mitigation measures, etc and that there are a wide range of stakeholders acting as decision-makers at some point in the EIA process (developers; EIA consultancies; statutory bodies, NGOs or public consultees, authorising authority, etc). Therefore in his view, EIA is not solely decision-informing, 'it is certainly often decision-forcing, if not decision-making' (Benson, 2003, p. 26).

As the discussion above suggests, decision-making plays a key role within EIA. Despite this, according to Weston (2000) and Cashmore *et al.* (2004) there have been few attempts to relate EIA to more generic theories of decision-making. At the same time, Benson (2003) states that there have been limited studies regarding the conceptual and theoretical foundations of EIA in general terms and indicates Weston (2000; 2010) as one of the few examples of attempting to relate EIA to decision-making theory.

According to Weston (2000) there are two main bodies of theories of administrative decision-making: the structural and behavioural theories. As the intention here is not to consider the structure of the society in which decision-makers are involved, but their actual behaviour within an organizational perspective (Weston, 2000), so the focus of the discussion is upon behavioural theories. The behavioural tradition is characterized by a theoretical continuum with rationalism at one extreme, pure intuition at the other and incrementalism between both (Weston, 2000).

The rationalist model of decision-making as well as the concept of rationalism applied to planning theory is largely based on the sociological theory of Weber and neo-classical economics (Benson, 2003; Weston, 2000). According to Weber, rationalism and bureaucracy are the key approaches to understanding administration and organisations (Weston, 2000). Within this context, decision-making becomes a systematised and routinised process in which decision-makers are expected to act in an objective and value-free way, making their decisions using a systematic, technical and preferably quantified (scientific)

assessment of facts (Benson, 2003). In addition, in line with neo-classic economics, decision-making is also conceived of as a logical and systematic process with the purpose of achieving a certain goal by using a set of specific means (Weston, 2000).

The work of Simon (1976) based on the application of the concept of rationalism to examine decision-making in organisational environments is considered one of the main contributions to the progress of decision-making theory (Hill, 2005 cited in Weston, 2010). Moreover, Simon's work is also seen as the basis for a large part of the rational procedural theories of EIA (Weston, 2010). Simon's rational model (located at one extreme of the behavioural theoretical continuum mentioned above) prescribes how decisions should be made, based on Weber's views, rather than how they are really made in practice (Weston, 2000). Here the existence of a strong link should be noted between rationalism and scientific knowledge which dominated many fields until the 1980s, including planning, environment and decision-making (Weston, 2010). According to this, the more rational, preferably by applying scientific methods, the 'better' the decision would be made.

In response to the pure rationalist model, critics proposed new theories which were contrary to the idea of decision-makers being value-free and objective (Weston, 2010), particularly environmental decision-makers who are thought frequently to use qualitative approaches and base decisions upon value judgments (Weston, 2000). As examples of such theories located in the behavioural continuum between the rationalism of Simon and pure intuition are Lindblom's (1980) incrementalism; Dror's (1964) optimal and Etzioni's (1967) mixed-scanning decision-making theories (Weston, 2010; 2000). Incrementalism argues that by adopting this approach decision-makers are able to identify the trade-offs inherent to their decisions; optimal and mixed scanning claim decision-makers should combine the use of rational tools (EIA, cost-benefit analysis) with intuitive judgment (based on experience, values) in order to arrive at their decisions (Weston, 2010; 2000). According to Benson (2003), these theories place EIA firmly within the political field of decision-making in planning and therefore see it as value-based and subjective.

Based on planning theory, two branches of EIA theory have been developed: rationalist procedural theories and substantive theories (Weston, 2010). The former focuses on the role played by EIA regarding the project decision-making process and the latter contextualises EIA as an element of social learning and communicative processes in the agenda of sustainable development (Weston, 2010). According to Cashmore (2004) and Jay *et al.* (2007), research has been mostly focused on practical and procedural elements of EIA in terms of whether or not it has been undertaken according to its procedural requirements. However, the production of studies on substantive purposes and outcomes as well as on the progress of theory itself regarding EIA has been limited, as outlined by Cashmore (2004).

Although its contribution as an instrument to achieve sustainable development appears to be one of the central purposes of EIA (Glasson, Therivel and Chadwick, 2005; Cashmore *et al.*, 2004; Sadler, 1996), it could be argued that a possible reason for the paucity of research on substantive issues of EIA is due to the difficulty in defining the concept of sustainable development in the first place (O'Riordan, 1993 cited in Cashmore *et al.*, 2004). The classic definition of sustainable development is 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987, p. 8). Although Glasson, Therivel and Chadwick (2005, p. 8) put this definition in a simpler way by stating that sustainable development is 'development that does not cost the Earth', the balance from trade-offs between economic, social and environmental issues in decision-making is far more complex in practical terms due to political issues and power relations (Flyvbjerg, 1998; Richardson, 2005). Ideally the combination both of procedure and of substantive outcomes would lead to EIA effectiveness, a recurrent expression in EIA literature (Sadler, 1996; Wood, 2003; Cashmore *et al.* 2004; Jay *et al.* 2007), which intends to 'determine how much difference EIA is making' (Jay *et al.* 2007, p. 290) in terms of protecting and improving the quality of the environment.

By examining the threefold concept of rationality divided by Habermas (cognitive-instrumental, moral-practical and aesthetic-expressive) and its

application to impact assessment, Elling (2009) also demonstrates the differences in terms of environmental outcomes of adopting a teleological or a deontological approach. Before discussing the differences between the two approaches, it should be mentioned that cognitive-instrumental refers to meeting objectives; moral-practical and aesthetic-expressive refer to moral and art systems respectively; all of which are normative in the sense they are based on a mutual agreement by individuals of a society via communicative reason (Elling, 2009).

According to Elling (2009), a teleological approach suggests the determination of a certain objective which will be achieved by pursuing a set of alternatives (i.e. it is a means-to-an-end or goal oriented approach). In a deontological approach, means and ends are freely selected and oriented towards reaching mutual understanding regarding the best option for the environment instead of reaching a predetermined objective (Elling, 2009). In other words, teleology is goal oriented while deontology is about mutual understanding.

Teleological and deontological approaches can be linked back to the procedural and substantive EIA theories previously addressed. It could be argued on one hand that procedural EIA theories, by focusing on the procedural aspect of the EIA process and its immediate role in informing the decision-making process regarding project authorization, imply the consideration of a teleological approach. On the other hand, substantive EIA theories, which have Habermas' theory of communicative rationality at their core (Weston, 2010), and their view of the ultimate role of EIA as an instrument for sustainable development and social learning, can be associated with a deontological approach.

With the purpose of contributing to the advancement of EIA theory as well as substantive purposes and outcomes of EIA, Cashmore (2004) examines the role of science in EIA by identifying two main interpretations of this role and five models derived from them. According to Cashmore (2004), EIA can be seen both as an applied science and as a civic science as these paradigms are overlapping and not mutually exclusive.

According to the paradigm of applied science, EIA is perceived as a process that applies the notion of science as 'a rational process of objective enquiry' based on scientific knowledge and technical expertise (Cashmore, 2004, p. 408). This philosophical tradition has strong links with the scientific method and the scientific approach of positivism (see chapter 3, section 3.2), which give the basis for EIA theory and practice according to the analytical science model under the paradigm of EIA as applied science (Cashmore, 2004). The other typology within this paradigm is the environmental design model which advocates the full integration of EIA in project design and policy formulation (Cashmore, 2004).

Moving to the paradigm of EIA as a civic science, EIA is perceived as a tool capable of influencing decisions by applying a different type of science, which is more inclusive, deliberative and participatory, namely civic science (O'Riordan, 2001). The models labelled under this paradigm are as follows (Cashmore, 2004):

- a) *The information provision model* is similar to the analytical science model; however, value judgement and stakeholder involvement are considered minimally;
- b) *The participation model* is similar to the information provision model; however, if values and stakeholder involvement are perceived as key elements of the scientific model, then stakeholders play a more substantial, inclusive and deliberative role within this model;
- c) *The environmental governance model* of EIA is seen as decision tool as part of environmental governance that empowers stakeholders, promotes a more equal society and contributes to a more sustainable form of development.

Here it should be highlighted that before Cashmore (2004) other authors, such as Bartlett and Kurian (1999), had also looked at the issue of understanding impact assessment within a broader theoretical context. These authors proposed six models that encapsulate some of the main debate regarding EIA and shed light in terms of their implications for EIA theory (Bartlett and Kurian,

1999). The five models of Cashmore (2004) have similarities with Bartlett and Kurian's models, as Cashmore himself points out. However, the discussion in Cashmore's work focuses on the role of science in EIA, while the other two authors emphasise EIA as a decision-making process (Cashmore, 2004). In terms of the similarities between these models, it should be mentioned, for example, that the analytical science model of Cashmore (2004) could be associated with the information processing model of Bartlett and Kurian (1999); moreover Cashmore's participation model could be linked with the pluralist politics model of Bartlett and Kurian (see section 2.3 for more details on these two models).

What is interesting and important regarding the examination of different theories, approaches, paradigms and models employed to understand EIA from a theoretical perspective is the possibility of establishing connections between them. For instance, procedural theories, such as EIA as applied science paradigm and its corresponding analytical science model, and the information processing model are structured in terms of the rational approach that dominated planning theory at the period of the emergence of EIA in the late 1960s. Therefore, 'value neutrality, technical and scientific rationality, and the power of 'perfect' information to ensure that the right decisions are taken by policy makers' were the key elements of such rationality (Bartlett and Kurian, 1999, p. 427). On the other hand, substantive theories, such as EIA as civic science and its models of participation and environmental governance, and the political economy, organisational politics, institutionalist and pluralist politics models of Bartlett and Kurian (although not discussed in detail here) apply a communicative rationality and deliberative democracy (Bartlett and Kurian, 1999), fostering a deontological approach.

The development of alternative models to the rational approach was due to the increasing criticism that such an approach to planning theory had attracted (Allmendinger, 2009; Brand and Gaffikin, 2007; Rydin, 2003; Tewdwr-Jones and Allmendinger, 2002; Harris, 2002; Pennington, 2002). In response, communicative and collaborative planning theories have developed from the sociological communicative theory of Habermas (Weston, 2010) and they now

form a key theoretical basis of the field of urban planning (Tewdwr-Jones and Allmendinger, 2002). Collaborative planning theorists, such as Healey (1997), explore 'other ways of knowing or thinking' based on open/free dialogue and mutual understanding between different stakeholders throughout the planning process (Wood and Becker, 2005, p. 351). In addition, collaborative planning was conceived by Healey's perception of planning as an interactive process and a governance activity 'occurring in complex and dynamic institutional environments, shaped by wider economic, social and environmental forces that structure, but not determine, specific interactions' (Healey, 2003, p. 104).

As planning cannot be dissociated from its social, economical and political contexts (Weston, 2010), and by consequence neither can EIA, it is hard not to contest the key predicates of the rationalist approach that conceive planning and EIA as a technical, value-free and apolitical activity. As a consequence to this, the communicative or collaborative turn in planning has also influenced the production of impact assessment theory (Richardson, 2005; Weston, 2010), particularly substantive EIA theory, in the sense that the purpose of EIA, as discussed above, is seen 'as not limited to its procedural role of informing decisions but part of a far more long term substantive project to increase environmental awareness and to contribute to the achievement of sustainable development' (Weston, 2010, p. 366).

However, it is necessary to keep in mind that even though communicative or collaborative rationality is thought to offer valuable opportunities in terms of participation and stakeholder engagement in the planning and EIA processes, this approach has also been exposed to criticism, particularly due to its limitation in recognising the influence of power (Flyvbjerg, 1998). Moreover, the rationalist approach to EIA and its prerequisites for a systematic, objective and procedural process still remains as a strong influence in impact assessment theory and practice nowadays (Weston, 2004), although increasing consideration has been given to substantive outcomes of EIA (Jay *et al.*, 2007). This situation illustrates Richardson's argument that planning theory (and consequently EIA theory) has not developed by electing a central paradigm;

instead it has been a territory where a wide range of parallel, incompatible and competing theories take place (Richardson, 2005).

### **2.3 Public participation in environmental assessment**

Public participation is an essential element of the EIA process (Weston, 1997; Hartley and Wood, 2005) and as Wood states 'EIA is not EIA without consultation and participation' (2003, p. 275). According to the International Association for Impact Assessment (IAIA), public participation in impact assessment 'may be defined as the involvement of individuals and groups that are positively or negatively affected by, or that are interested in, a proposed project, program, plan or policy that is subject to decision-making process' (Andre *et al.*, 2006, p. 1). For Lawrence (2003, p. 326) it is 'a generic term for all types of activities designed to include the public in the decision-making process, prior to and after a decision'.

Although this section focuses on public participation in the context of EIA, it should be noted that the concept of public participation as well as its theoretical basis transcends the fields of EIA and environmental assessment. There is a strong link between strategies of participation and approaches to democracy as Carpenter and Brownill (2008) observe. Before examining such a relationship, it is important to explore the issue of governance which characterizes the different approaches to democracy. In terms of models of governance, Healey (2006) points out that there are four models which are widely used to describe Western governance systems: representative democracy, pluralist democracy, corporativism and clientelism.

According to Healey (2006), representative democracy is the model of governance in which citizens elect their representatives, the politicians, who articulate the public interest on any issue. Pluralist democracy is a similar model; however politicians are more involved in arbitrating between interests of different groups than articulating the public interest. The corporatist model recognises the public interest as the interest of the major businesses, articulated to national level organisations. Finally, the clientelism model involves



using the governance structure for allocating and distributing resources in a hidden way between politicians and government offices (Healey, 2006).

Another form of democracy is a more participatory one called deliberative democracy (Holder, 2004; Carpenter and Brownill, 2008). At its heart is the Communicative Theory of Habermas (Holder, 2004) (see section 2.2), which means deliberative democracy emphasises agreement between a range of stakeholders through negotiation by using communicative rationality (Carpenter and Brownill, 2008). Supported by this approach is the view of participation as an opportunity to engage and involve the public in the decision-making process proactively. Lawrence (2003) outlines how public involvement in environmental assessment includes not only informing the public but also integrating their views and interacting with them before making decisions.

This differs from the notion of public participation built on the approach of representative democracy which is characterised by minimum engagement with the public as elected politicians are entitled to make decisions in the name of citizens who elected them (Carpenter and Brownill, 2008). Aligned with this perspective is the basic assumption that participation in environmental assessment contributes to the validity of decisions as the key issues are examined against the views of those who have a knowledge regarding the area or have an interest in the project (Holder, 2004). With regard to decision-making, it should be highlighted that a remarkable distinction between representative and deliberative approaches to democracy is that the deliberative form provides an alternative to the model of instrumental rationality of decision-making, which is largely recognised by its limited access to public participation (Holder, 2004). Additionally, Petts (1999) emphasises that the use of more collaborative approaches to participation in EIA is a result of the challenges posed regarding its rational and technical basis.

Following this logic there are clear similarities between the ideal of deliberative democracy (including its approach to public participation) and the current strand of planning theory: collaborative planning (Carpenter and Brownill, 2008). It seems that the communicative turn addressed previously (see section 2.2) has

influenced a variety of fields across planning, environmental assessment and public participation, to name a few which are relevant for this study. As Petts (1999, p.165) explains: 'it is apparent from an examination of the use of new participatory approaches that they are needed because of the failure of formal decision-making processes adequately to deal with public issues'.

Rydin and Pennington (2000) point out that the collaborative planning of Healey (1997) contributes both to a more inclusive and effective planning system and to a more communicative/deliberative democracy. In Tewdwr-Jones and Allmendinger's words (2002, p. 214), the collaborative turn in planning 'is not simply a theory but a 'world view' based on participatory perspective of democracy [...]'. In terms of participation in EIA, Lawrence (2003, p. 387) indicates that collaboration 'is inclusive and open, involves multiple perspectives and forms of knowledge, is jointly undertaken by stakeholders, and it is directed toward and guided by substantive environmental management, environmental justice, and sustainability ends'. Furthermore, for Holder (2004) the adoption of more collaborative forms of planning reflects the deliberative ideal in relation to environmental democracy and sustainability in line with the principles of the Agenda 21.

Associated with the arguments of Lawrence and Holder is the substantive purpose of EIA as element of social learning in the context of sustainable development (see section 2.2). In order to achieve such purpose, public participation plays a key role in the sense that it can foster social learning between stakeholders. By identifying four components (public involvement, communications, mutual education and negotiations) capable of contributing to making EIA a more collaborative process, Lawrence (2003) claims that EIA should be conceived as a learning process and as an opportunity for all stakeholders involved to enhance their knowledge 'about and through the EIA process' (p. 386). This is in accordance with Cashmore's observation regarding the EIA literature that suggests that the most contemporary substantial influence of EIA is in the sense of raising environmental awareness among stakeholders (MacDonald and Brown, 1995; Hyman *et al.*, 1988 cited in Cashmore, 2004).

Here it is important to highlight the difference between consultation and participation. Participation is about engagement and active contribution to the decision-making process; while consultation is about asking for information and comments regarding proposals (Petts, 1999). Consultation is in accordance with the procedural aspect of EIA and participation with the substantive (collaborative/deliberative) purpose of the EIA process. In fact, according to the deliberative ethic, participation is one of the steps to empower citizens in the decision-making process. Arnstein's ladder of participation (Petts, 1999) describes the different degrees of participation evolving from manipulation, information provision, consultation to participation, delegated power and citizen control. However, as Petts (1999) observes, it is the level of participation that many planning and EIA processes have supported which means that the upper levels (delegated power and citizen control) remain little explored in practical terms.

Other relevant models of participation in EIA are proposed by Cashmore (2004) and Bartlett and Kurian (1999), which were introduced previously in section 2.2. The participation model of Cashmore (2004), places stakeholder involvement at the centre of the scientific model, which means stakeholders have a more substantial, inclusive and deliberative role with this model. According to Shepherd and Bowler (1997), stakeholder involvement is perceived as a substantive, proactive process rather than as a reactive, procedural exercise. Additionally, Richardson (2005) states that, from a planning perspective, participation is being considered more in relation to a procedural issue rather than a value one. In line with this model, participation is necessary because there is a need to convert decision-making in the environmental field into a more responsive and transparent process, 'democratising democracy, if not deliberative democracy'; and to embrace the multitude and plurality of values and priorities within society (Cashmore, 2004, p. 413).

Cashmore's participation model has strong links with his environmental governance model which aims to empower stakeholders in order to achieve more sustainable forms of development (see section 2.2). According to this perspective, EIA should encompass all the characteristics of civic science by

being inclusive, deliberative and participatory. Moreover, EIA 'is also an acutely political and moral process, used to promote social justice and equality, to make decision-making transparent and institutions accountable, to minimise losers, and to realise community self-governance' (Cashmore, 2004, p. 413).

The pluralist politics model of Bartlett and Kurian (1999) aims to achieve a higher degree of public participation in the decision-making process. According to its proponents, EIA is seen as a tool to promote more democratic processes and practices by engaging with citizens (Bartlett and Kurian, 1999). In addition the authors point out that an EIA process that embraces public participation will be ensuring that environmental issues are given weight in the decision-making process (Bartlett and Kurian, 1999).

Both models of participation plus the environmental governance model of Cashmore are strongly associated with the approaches of deliberative democracy and collaborative planning, all of which have communicative rationality at the heart. As highlighted in section 2.2, several aspects of Bartlett and Kurian's models are consistent with concepts of communicative rationality and deliberative democracy (Bartlett and Kurian, 1999). In terms of Arnstein's ladder of participation, both models could be located at the upper degrees as they foster citizens' engagement and empowerment in order to build a more emancipatory society.

## **2.4 Conclusions**

The diagram below (Figure 2.1) summarises the four dimensions of the research: contextual, theoretical, analytical and empirical. The explanation on the dimensions is provided subsequently.

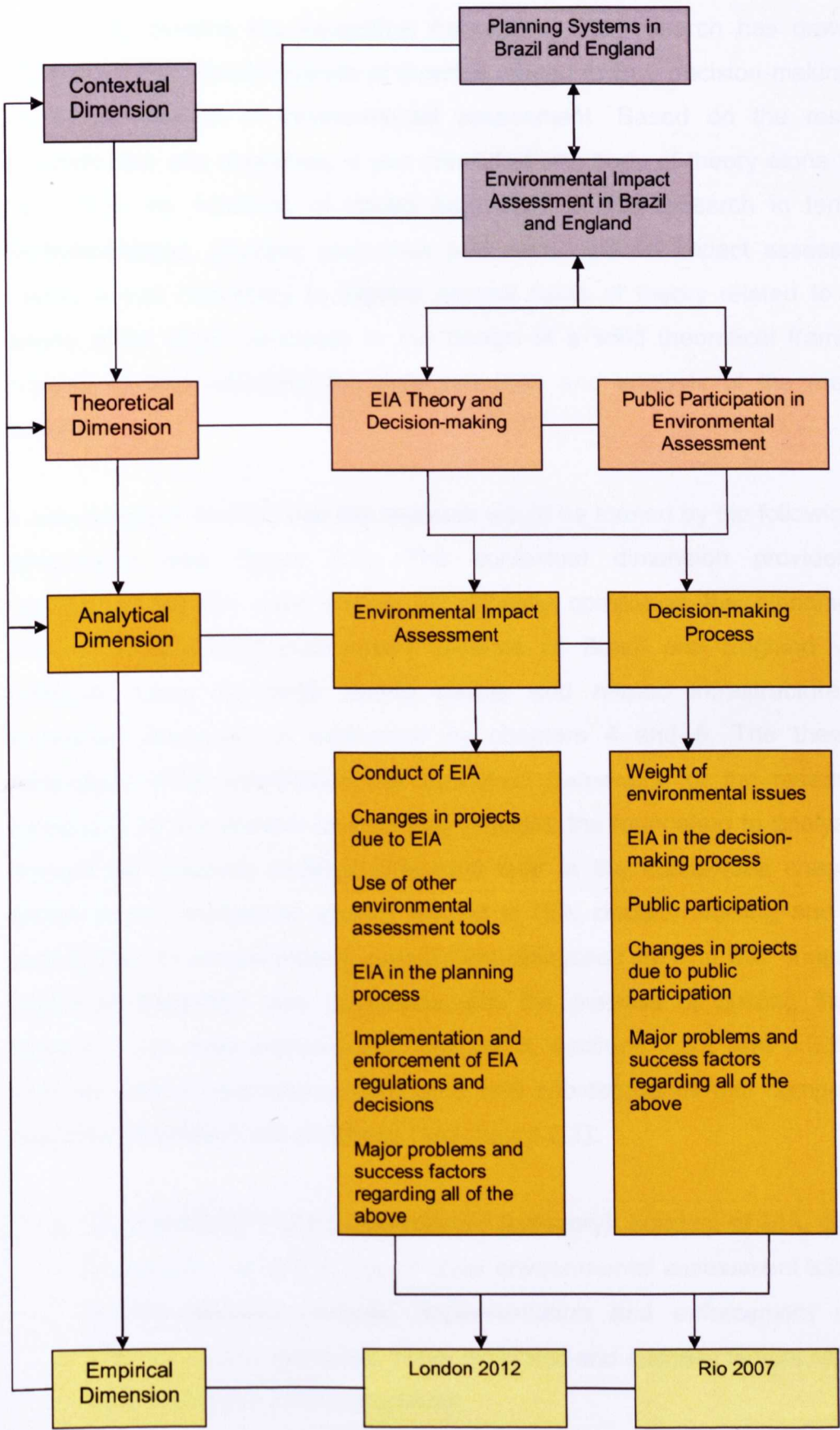


Fig. 2.1: Contextual, theoretical, analytical and empirical dimensions of the research.  
Source: The author, 2011.

In order to develop the theoretical framework, this research has drawn on elements from different strands of theories related to EIA, decision-making and public participation in environmental assessment. Based on the research question, aim and objectives, it was clear that one body of theory alone would not inform the multitude of issues addressed in this research in terms of decision-making, planning processes and environmental impact assessment. Rather it was necessary to explore several fields of theory related to these issues which could contribute to the design of a solid theoretical framework capable of best informing the data collection and analysis of the research findings.

It was therefore decided that the research would be formed by the following four dimensions (see Figure 2.1). The contextual dimension provides the background for the case studies by critically comparing the planning and environmental impact assessment systems of Brazil and England with a particular focus on major sports events and related infrastructure. The contextual dimension is addressed by chapters 4 and 5. The theoretical dimension, which establishes the theoretical framework for the research, is addressed by the present chapter and provides the foundation to analyse and discuss the research findings presented later in the thesis (see chapter 8). Based on the theoretical strands related to EIA, decision-making and public participation in environmental assessment discussed here in this chapter, an analytical dimension was developed with the purpose of guiding the data collection and data analysis (see chapter 3, sections 3.3.2 and 3.3.3). The analysis criteria organised in categories and sub-categories that compose the analytical dimension are as follows (see Figure 2.1):

- a) *Environmental Impact Assessment* (category): conduct of EIA, changes in projects due to EIA, use of other environmental assessment tools, EIA in the planning process, implementation and enforcement of EIA regulations and decisions, major problems and success factors regarding all of the above (sub-categories);
- b) *Decision-making Process* (category): weight of environmental issues, EIA in the decision-making process, public participation, changes in

projects due to public participation, major problems and success factors regarding all of the above (sub-categories).

The analytical criteria organised in categories and sub-categories described above were applied to the case studies and correspond with the empirical dimension of the research (see chapters 6 to 8 for this dimension). The categories and sub-categories of the analytical dimension and their links with the research methodology are explained in detail in chapter 3 (see sections 3.3.2 and 3.3.3). Therefore, the next chapter provides the methodology employed in this investigation in order to gain the evidence needed to answer the research question and achieve the research objectives and aim.

### **3 RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter establishes the methodology to investigate the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England. The chapter starts by presenting the research approach and some philosophical issues underpinning it. Following this, a set of related research methods to collect and analyse data has been developed to address the research question, aim and objectives. The present research has been approved by the University Research Ethics Committee at Oxford Brookes University. All information collected during the interviews, which were audio recorded with a permission of research participants, is kept strictly confidential and used exclusively for the purposes of this research and further publications in academic journals and conferences.

#### **3.2 Research approach**

There have been several philosophies of science which have influenced the way of doing social research. As one example is the philosophical tradition of positivism which advocates the application of the methods of the natural sciences to the study of the social world (Bryman, 2004). According to the positivism approach, research must be value free, which means that personal beliefs and feelings of a researcher must be eradicated (Robson, 2002). According to this point of view, the quality of research is based on the following aspects: validity, reliability and replicability (Seale, 2004). Validity refers to the truth-value of a research project; reliability concerns the consistency between research procedures and their results; and replicability refers to the possibility of repeating a research project and getting the same result again (Seale, 2004). However, positivism has been a target of criticisms from a range of perspectives (Robson, 2002), with particular reference to the issues discussed above (Can research be value free? Can researcher's self be left behind when doing



research? How important are validity, reliability and replicability for research in terms of quality?).

In order to address these questions, as an alternative to the positivist approach, another approach emerges which is called interpretivism (Bryman, 2004). Interpretivist and idealist approaches share a view that the subject of the social sciences (people and their institutions) is different to that of the natural sciences (Bryman, 2004); therefore, the study of the social world requires a set of different research procedures. The aim of research, based on interpretativism and idealism approaches, is to understand the meaning of social action in a specific context (Brownill, 2008). It involves interpretation and 'the researcher must achieve a degree of empathy with the actor to get at its meaning' (Filmer *et al.*, 2004, p. 37). According to this view research cannot be value free.

The last issue concerning this approach discussed here refers to the criteria for quality of research. Usually, the quality of qualitative research is based on the plausibility and credibility criteria, which may be criticized for not applying validity, reliability and replicability criteria from positivism (Seale, 2004). However, there are other ways of enhancing the quality of qualitative research. Beside the use of plausibility and credibility criteria, Seale (2004) suggests the consideration of the following procedures: adopt triangulation; provide member validation; produce well-grounded theory with good examples of concepts; demonstrate the originality of findings by relating these to current social issues or social theories; and combine qualitative and quantitative methods.

Throughout this section it is possible to recognise that both approaches, positivist and interpretivist, have strengths and weaknesses. The same is valid for research methods associated with quantitative and qualitative research. In order to capitalize strengths and minimize weaknesses, Bryman (2004) proposes combining quantitative and qualitative approaches.

Following the lead of Bryman (1988, 2004, 2008), Tashakkori and Taddlie (1998) present a set of guidelines that mix both quantitative and qualitative

approaches (mixed-methods studies), in a form of pragmatism. According to Robson (2002), this approach advocates the use of whatever philosophical or methodological approach suits best for a particular research problem.

Although there is an argument against the integration of both qualitative and quantitative approaches (Bryman, 2004), claiming that they cannot be combined because they have a different mix of epistemology, ontology and research methods, in Bryman's view this does not represent a barrier: 'there is a recognition that quantitative and qualitative research are each connected with distinctive epistemological and ontological assumptions but the connections are not viewed as fixed and ineluctable' (2004, p. 454). In this sense, research methods are more independent in relation to epistemological commitments than is often supposed. As a result, it is possible to use a research method from one research strategy in order to collaborate with another.

That is the intention of pragmatism, to make the most of pluralistic approaches to get the best knowledge to address a research problem. For pragmatists, truth is 'what works' (Benson, 2005), which differs from other philosophical positions, such as positivism and interpretativism, for which there is only one truth (positivism) or multiple truths (interpretativism) (Brownill, 2008).

According to Benson (2005), researchers who adopt this approach in their researches are guided by their personal values and beliefs and they frequently study issues that they consider important. In their work, Tashakkori and Teddlie (1998, p. 30) support Benson's view stating that pragmatism is 'a very practical and applied research philosophy: study what interests you and is of value to you, study it in the different ways that you deem appropriate, and use the results in ways that can bring about positive consequences within your value system'.

The present research, based on the nature of the research question, aim and objectives which seek to understand a social phenomenon in its specific context, has adopted a qualitative approach for collecting and analysing data in order to provide a deeper understanding of the phenomenon studied. Aligned with a

qualitative strategy, this research has employed pragmatism as the paradigm that underpins and informs the research methods. This paradigm has been selected because of the flexibility of pragmatism in terms of theory, epistemology and ontology whilst allowing researchers to apply whatever approaches and strategies they consider more appropriate to address a research topic (Robson, 2002), based on their personal values and beliefs (Benson, 2005).

Pragmatism has influenced the design of the research methods by underlying the selection of methods both to collect and analyse data. Such an influence was reflected, for instance, in the choice of the number of case studies, in defining the number of interviews and in the way participants were contacted for the interviews. In addition, it should be noted that the flexibility of pragmatism in terms of doing 'what works' (Benson, 2005) has also helped in accommodating some methodological changes experienced throughout this research process regarding SEA and collaborative planning (see chapter 1, section 1.3).

### **3.3 Research methods**

This part of the chapter describes the research methods that have been used in this research both to collect and analyse data. A combination of methods was thought to be more useful, since no single method would be able to address the research question, aim and objectives alone. The combination of methods also allows achieving some degree of triangulation (Benson, 2005) by combining several pieces of evidence gathered from different methods and techniques.

Before presenting the methods chosen for this study, it is important to review the research question, aim and the objectives of the investigation. In order to examine the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England, the following research question has been developed (see chapter 1, section 1.2):

**Research question:** How important are environmental issues in the decision-making in the planning process of major sports events and related infrastructure?

In line with the research question, the following aim and objectives have been established (see chapter 1, section 1.2):

**Aim:** To analyse the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England.

**Objective 1:** To provide a comparative critique of the planning and environmental impact assessment systems in Brazil and England to understand what these systems seek to deliver with particular reference to major sports events and associated infrastructure;

**Objective 2:** To examine the implementation process of EIA regulation, which corresponds to the implementation phase of the planning, in the contexts of a Brazilian and an English major sports event;

**Objective 3:** To identify and compare major problems and success factors with regard to EIA and decision-making in the contexts of a Brazilian and an English major sports event;

**Objective 4:** To examine the extent to which lessons may be learnt from the English and Brazilian experiences on major sports events for the Brazilian context as well as elsewhere.

In order to pursue the aim and objectives and provide the evidence needed to answer the research question, a case study strategy was applied along with the following data collection methods: semi-structured interviews and document analysis.

### 3.3.1 Research strategy

#### *Case study*

A case study approach was selected because this research involves an empirical study of a particular contemporary event within its specific context by applying a set of various sources of evidence (Yin, 1994 cited in Robson, 2002)

in order to achieve the research aim. The adoption of a case study strategy has advantages and disadvantages. In terms of disadvantages a case study approach, particularly when it involves multiple cases, may be regarded as a time-consuming and resources-demanding strategy (Yin, 2009). On the other hand, as an advantage, case study allows a deeper understanding of a certain phenomenon within its real life context (Yin, 1994 cited in Robson, 2002), which is what this research seeks to. As this research aims to examine the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England, the case studies chosen were two major sports events which are presented in more details in the following section.

### *Selection of the case studies*

Major sports events have been selected because they involve some degree of infrastructure development which requires the conduct of environmental impact assessment procedures, such as EIA. With the absence of infrastructure, it would not be possible to investigate the contribution of EIA in the decision-making in the planning process of major sports events.

The major sports events chosen as case studies for this research are the London 2012 Olympic Games (England) and the Rio 2007 Pan American Games (Brazil). A brief characterization of the Olympic Games and the Pan American Games is provided as follows. The Summer and Winter Olympic Games are regarded as one of the most famous sport competitions in the world and they are held every four years. The last edition of the Summer Olympic Games was held in Beijing (China) and next one will be in London in 2012. After the London Games, the Olympics will be held in Rio de Janeiro (Brazil) in 2016. The Pan American Games are considered a version of the Olympic Games held exclusively in the American continent, covering the countries of North, Central and South Americas. The Pan American Games are also held every four years and take place in the year before the Summer Olympic Games. The last edition

of the Pan American Games was held in Rio de Janeiro in 2007 and the following one will be held in Guadalajara (Mexico) in 2011.

The list of criteria applied in the selection of the case studies and the reasons for selecting such criteria are presented in Table 6.1 (below).

Table 3.1: Criteria and reasons for the selection of the case studies.

Criteria	Justification for criteria
1. Sports events	Under-researched field from the perspective of EIA and mega-projects literature.
2. Large scale	The case studies chosen represent major projects in terms of preparation and operation.
3. Presence of physical infrastructure	It requires the conduct of environmental impact assessment procedures (EIA).
4. Timeliness	Brazil will host the Football World Cup in 2014 and the Summer Olympic Games in 2016, hence the possibility to draw upon lessons learned from the Brazilian and English experiences on major sports events is thought to be helpful (see chapter 1, section 1.1).

Source: The author, 2009.

### 3.3.2 Methods of data collection

#### 3.3.2.1 Interviews

Interviewing is one of the most common forms of qualitative research. According to Bryman (2004), it is the flexibility of the interview that makes it so attractive, especially when it is compared to other methods, such as the ethnographic one, for which a researcher's sustained absence is required from work and family life.

Semi-structured interviews were selected as a useful method to apply the analytical framework introduced in chapter 2 (see section 2.4) and to gain insights into key-actors' perceptions regarding decision-making, EIA and

planning process in the context of both case studies. The flexibility in conducting semi-structured interviews (Bryman, 2008; Robson, 2002), with a list of pre-organised questions that can change and adapt according to interviewees' responses, also was a key factor in deciding to apply this type of interview as a technique to collect data. Despite the advantage in terms of flexibility, semi-structured interviews and their subsequent coding are also regarded as time-consuming tasks.

As the intention here was to gain perceptions and opinions of research participants in order to examine and understand the decision-making in the planning process of major sports events and the contribution of EIA, the use of other data collection methods, such as questionnaires, was disregarded because they would not have allowed the collection of the perceptions and opinions in depth. Focus group was also disregarded in the scope of this research due to research participants' characteristics (who belonged to different organisations and had time constraints issues) that would have made the possibility of gathering them in groups impractical (see tables 3.2 and 3.3 for research participants).

The interviews in both countries were undertaken with individuals from the following spheres: government; delivery bodies; organising committees; private sector; EIA consultancies; NGOs; residents' associations; environmentalists; independent bodies; and the Judiciary (Federal Public Ministry in Brazil), all of whom had a direct involvement with the two Games in terms of environment and infrastructure issues. In total 34 interviews were carried out, of which 20 interviews were undertaken in Brazil (Rio de Janeiro) and 14 in England (London). The questions posed by the interview schedule (see Appendix A) were related to the following issues, which reflect the research question and the theoretical and analytical frameworks developed in chapter 2 (see section 2.4, figure 2.1):

*Environmental Impact Assessment :*

- a) Conduct of EIA
- b) Changes in projects due to EIA
- c) Use of other environmental assessment tools
- d) EIA in the planning process,
- e) Implementation and enforcement of EIA regulations and decisions
- f) Major problems and success factors regarding all of the above

*Decision-making process:*

- g) Weight of environmental issues
- h) EIA in the decision-making process
- i) Public participation
- j) Changes in projects due to public participation
- k) Major problems and success factors regarding all of the above

Tables 3.2 and 3.3 show in more detail the groups from which individuals were interviewed for the Rio 2007 Pan American Games and London 2012 case studies.



Table 3.2: Participants in the interviews from the Rio 2007 Pan American Games case study.

Sphere	Institution/Body	Code for organisation	Description	Number of Interviewees
Government of Rio de Janeiro	SERIO (municipal level)	SERIO	Special Secretariat for the Rio 2007 Pan American Games: responsible for preparing the city in terms of infrastructure and coordinating the actions for the construction of sport facilities (Official Report Rio 2007 Pan American Games, n.d)	5
	State Secretariat for the Environment	SEA	See chapter 5, section 5.3 for details	1
	Municipal Secretariat for the Environment	MSE	See chapter 5, section 5.3 for details	1
	INEA (state level)	INEA	Rio de Janeiro state agency for the environment in charge of environmental licensing and EIA	1
Organising Committee	CO-RIO	CO-RIO	Organising Committee for the Rio 2007 Pan American Games: responsible for providing specifications for constructions and services as well as monitoring the application of such specifications in both activities (Official Report Rio 2007 Pan American Games, n.d)	2
Private Sector	Ernst & Young Brazil	Ernst & Young Brazil	Consultancy responsible for undertaking a study related to economic, social and environmental impacts of the Games and for collaborating with the monitoring plan of the Games	1
	FIA	FIA	Consultancy that helped the federal level with issues related to budget, contracts, monitoring of projects, etc (FIA, n.d)	1
	AGENCO	AGENCO	Company responsible for the construction of the Pan American Village	1
EIA Consultancy	SERVEC	SERVEC	Consultancy responsible for undertaking the EIA for the Pan American Village	1
NGO	Lagoa Viva	Lagoa Viva	Environmental NGO located in Barra da Tijuca where the majority of the Games (venues and sports facilities) took place	1
Residents' Association	Camara Comunitaria da Barra da Tijuca	CCBT	Residents' association also located in Barra da Tijuca which participated in the public consultation for the Pan American Village	1
Environmentalists	Former government employee Rio de Janeiro Councilman (at the time of the fieldwork)	Environmentalist	No description	2
Judiciary	Federal Public Ministry (Ministerio Publico Federal)	FPM	Responsible for assuring that citizens' right are respected by the public power and for enforcing the application of laws (Federal Public Ministry, 2011)	1
Rio 2016	Organising Committee	Rio 2016	Responsible for planning and delivering Rio 2016	1

Source: The author, 2011.

Table 3.3: Participants in the interviews from the London 2012 case study.

Sphere	Institution/Body	Code for organisation	Description	Number of Interviewees
<b>Government</b>	Department for Culture, Media and Sport	DCMS	It aims 'to improve the quality of life for all through cultural and sporting activities, to support the pursuit of excellence and to champion the tourism, creative and leisure industries' (DCMS, 2009, n.p.).	1
<b>ODA</b>	ODA	ODA	Olympic Delivery Authority: 'is the public body responsible for developing and building the new venues and infrastructure for the Games and their use after 2012' (London 2012, 2011a, np)	2
	ODA Planning Decisions Team	ODA PDT	Under ODA and responsible for making decisions on planning applications and for carrying out public consultations (London 2012, 2011b)	1
	ODA Planning Committee	ODA PC	Under ODA and responsible for 'either making the decisions on the applications submitted to the ODA or for delegating the decision to the ODA Planning Decisions Team officers' (London 2012, 2011c, n.p)	2
	ODA Community Relations	ODA CR	Responsible for managing the communications and relations between the residents, the business and the contractors	1
<b>Organising Committee</b>	LOCOG	LOCOG	The London 2012 Organising Committee: 'responsible for preparing and stating the Games' (London 2012, 2011d, n.p)	1
<b>EIA Consultancy</b>	Atkins	EIA Consultancy	Consultancy responsible for undertaking the EIA for the Olympic Park	1
	Olympic Park Legacy Company	OPLC	It is 'the organisation responsible for planning, developing and managing the Park after the 2012 Games' (Olympic Park Legacy Company, 2011a, n.p)	1
<b>Olympic Park Master Plan</b>	AECOM/EDAM	OPMP	Company responsible for master planning the Olympic Park	1
<b>NGOs</b>	WWF	WWF	Environmental conservation body (WWF, 2011)	1
	BioRegional	BioRegional	It is 'an entrepreneurial charity which initiates and delivers practical solutions that help us to live within a fair share of the earth's resources – what we call one planet living' (BioRegional, 2011a)	1
<b>Commission for a Sustainable London 2012</b>	Commission for a Sustainable London 2012	CSL	The Commission 'provides assurance to the Olympic Board and the public on how the bodies delivering the London 2012 Olympic and Paralympic Games and legacy are meeting their sustainability commitments' (Commission for a Sustainable London 2012, 2010a, n.p)	1

Source: The author, 2011.



### *Contacting participants and undertaking the interviews*

The first part of the fieldwork was undertaken in Rio de Janeiro in Brazil. Research participants were contacted by email and telephone; the researcher introduced herself, presented the research briefly and pointed out that their participation in the interviews would be very beneficial for this study. For those who decided to participate, date, time and place were booked in advance for the interviews. It is important to note that all interviews were conducted in professional or business locations. At the start of the interviews, research participants were given the Participant Information Sheet (see Appendices B and C), informing them of the details of the research and the requirements of their participation. At this stage, participants were also asked to sign a Consent Form (see Appendices D and E), a confidentially agreement between researcher and interviewee, which allowed the researcher to record the interviews and use the information gathered only for academic purposes without citing names and specific positions. The 20 interviews with key actors involved directly with the Rio 2007 Pan American Games were conducted between the months of January and February 2010, as the month of December 2009 was used to contact potential interviewees and to arrange the interviews details (date, time and place) for those interested in taking part of this study.

The second part of the fieldwork was carried out in London in England. Differently from Brazil, research participants were contacted by letter first and then by email, which displayed the same pattern of information used to contact participants in Brazil. As soon as participants responded by email or telephone to the researcher, confirming their interest in participating, interviews were arranged at business locations. The procedure conducted at the beginning of each interview was the same as the one carried out in Brazil and described above. Once more issues of confidentiality and anonymity were emphasised to research participants. The 14 interviews related to the London 2012 case study were undertaken from June to August 2010, as the month of May 2010 was dedicated to contact potential interviewees by sending letters and emails. Here it is worth mentioning that in both countries there were potential participants that declined the invitation to participate in this research due to their busy schedules.

Those contacted who indicated that they were unable to participate were members of the ODA (two individuals), ODA Planning Committee (one individual), CO-RIO (two individuals) and government (three individuals in Brazil and one in England). The only individual contacted who did not respond was a member of the ODA Planning Committee. Despite the non-participation of the individuals cited above, the quality of the fieldwork or the quality of the data collected from the interviews was not compromised as each of those organisations had at least two of its members interviewed for this research providing enough data for a meaningful analysis.

### **3.3.2.2 Document analysis**

For both case studies this research examined the following official documents obtained from the sources as follows:

- a) *Government*: relevant legislation on the environment and urban planning (e.g. Brazilian Federal Constitution); planning documents (e.g. City Statute and Master Plans in Brazil; Planning and Compulsory Purchase Act 2004 in England) and environmental impact assessment regulations (European Directive 85/337 on EIA and CONAMA 237/97 on environmental licensing and EIA).
- b) *Delivery bodies*: official reports and official publications on different elements of the Games, such as transport, sustainability, legacy and consultation.
- c) *EIA consultancies*: environmental statements.
- d) *Private sector*: official reports.
- e) *NGOs*: official documents such as One Planet Living prepared by BioRegional.
- f) *Independent assurance bodies*: official reports and publications produced by the Commission for a Sustainable London 2012.

A detailed list of the documentation analysed according to each organisation described above is presented in table 3.4.

Table 3.4: List of documents analysed.

Organisation	Brazil/England	Document/Brazil	Document/England
Government		<p><b>Federal:</b> Resolutions CONAMA 001/86 (EIA) and 237/97 (Environmental Licensing); Law 6.938 (National Policy for the Environment); Law 10.257 (City Statute/Estatuto da Cidade); Federal Constitution (Articles 225—the environment—182 and 183—urban policy)</p> <p><b>State:</b> Law 1.356 (EIA); Decree 42.440/10 (decentralisation of the environmental licensing from the state to the municipal level in Rio de Janeiro); Deliberations CECA 4.845; 2.555 and 4.662 (public hearing)</p> <p><b>Municipal:</b> Master Plan (<i>Plano Diretor</i>) of Rio de Janeiro; Municipal Constitution of Rio de Janeiro (<i>Lei Organica Municipal</i>, chapters 5—urban policy—and 6—the environment); Rio 2007 Pan American Games and III Parapan American Report (prepared by the City Hall of Rio de Janeiro); Urban and Environmental Legacy Plan for Rio 2016 (produced by the Special Committee for Urban Legacy under the Municipal Secretariat of Urbanism of Rio de Janeiro)</p>	<p>PPS 11 (Regional Spatial Strategies) and 12 (Local Spatial Planning); The Planning and Compulsory Purchase Act 2004 (Major Infrastructure Projects; Sustainable Development); European Directive 85/337 (EIA); The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999</p>
Delivery Bodies		<p>Official Report XV Pan American Games and III Parapan American Games (Rio 2007) Inventory of green house gas emissions in the Rio 2007 Pan American Games (prepared by the Brazilian Olympic Committee in 2008)</p>	<p>Transport Plan for the London 2012 Olympic and Paralympic Games—Strategic Environmental Assessment (Environment Report); Olympic Park Sustainable Development; London 2012 Sustainability Guidelines: corporate and public events (second edition); London 2012 Carbon Footprint Study; Towards a One Planet 2012; Investing in the Future; Code of Consultation; London 2012 Sustainability Policy; Designing for Legacy</p>
EIA Consultancies		<p>Environmental Impact Statement (EIS) for the Pan American Village</p>	<p>Environmental Statement (ES) for London 2012</p>
Private Sector		<p>Statistics Report FIA: Rio 2007 (organised by FIA—Fundacao Instituto de Administracao)</p> <p>Analise de impactos dos Jogos Pan Americanos do Rio 2007 (organised by Ernst &amp; Young Brazil n.d)</p>	<p>None</p>
NGOs		<p>None</p>	<p>One Planet Living (BioRegional)</p>
Independent Bodies	Assurance	<p>None</p>	<p>Raising the bar: Can London 2012 set new standards for sustainability? (Produced by the Commission for a Sustainable London 2012); Extinguishing Emissions?; Eco-chic? Sustainable Design</p>

Source: The author, 2011.

### **3.3.3 Data analysis**

The data collected during the fieldwork in Brazil and England, from both case studies through the interviews, were analysed using a content analysis approach based on a coding technique. According to Bryman (2008, p. 275), content analysis 'is an approach to the analysis of documents and texts that seeks to quantify content in terms of predetermined categories and in a systematic and replicable manner'.

In carrying out this process coding is a central element as it provides a solution to organising qualitative data, which is usually unstructured and difficult material to deal with (Robson, 2002). A code is a symbol applied to a part of a text to classify or categorise it. Besides, codes are frequently connected with research questions, concepts and themes (Robson, 2002).

The data collected from the interviews, which were audio recorded, were transcribed and then coded manually. This task was undertaken first for the Brazilian set of data between the months of March, April and May 2010 and then for the English set during the months of July and August 2010. Here it is important to mention that the interviews conducted in Brazil were transcribed in Portuguese and only the parts used as quotations in chapter 6 were translated into English. The codes that emerged from the interviews were grouped into two main categories which correspond to the same two categories of the analytical dimension shown in chapter 2 (section 2.4, figure 2.1). Each of these categories encompasses sub-categories of codes which were also derived from the sub-categories of the analytical framework.

Tables 3.5 and 3.6 summarise the categories and sub-categories of codes for the Brazilian and English case studies. Followed by an asterisk (\*) are the sub-categories which were not part of the original analytical framework and interview schedule (these issues were raised by interviewees during the conduct of the interviews). It should be noted that the categories of codes are the same for both cases; however the sub-categories of codes vary from one case study to another due to specific characteristics of each context. It is also worth



highlighting that the categories and sub-categories of codes, which are in line with the categories and sub-categories of the analytical framework presented in chapter 2 (section 2.4), informed the structure of the headings and sub-headings for chapters 6 to 8. The sub-category of the analytical framework related to major problems and success factors, although not converted into a sub-category of codes, it is discussed throughout chapters 6, 7 and 8.

Table 3.5: Categories and sub-categories of codes for the Rio 2007 Pan American Games.

Category	Sub-Category
Environmental Impact Assessment	Environmental licensing and EIA EIA for the Pan American Village Changes in the Pan American Village project due to EIA Use of other environmental assessment tools in the Games Environmental licensing, EIA and other procedures in the planning process of major sports events and associated infrastructure Implementation and enforcement of EIA regulations and decisions
Decision-making process	Relationship between federal, state and municipal levels of government* Weight of environmental issues Environmental licensing, EIA and other procedures in the decision-making process of major sports events and associated infrastructure Public consultation Pan American Games as a preparation for hosting the Olympic Games* Concentration of the Games in <i>Barra da Tijuca</i> * Legacy of the Games*

Source: The author, 2010.

Table 3.6: Categories and sub-categories of codes for London 2012.

Category	Sub-Category
Environmental Impact Assessment	EIA
	Use of other environmental assessment tools in the Games
	Changes in projects due to EIA
	EIA and other procedures in the planning process of major sports events and associated infrastructure
Decision-making process	Relationship between stakeholders*
	Role of the Commission for a Sustainable London 2012*
	Engagement with environmental NGOs*
	Weight of environmental issues
	Public consultation
	Changes in projects due to public participation
	Legacy of the Games*

Source: The author, 2010.

A document analysis was applied to analyse the data collected from the review of the documentation previously cited in section 3.3.2.2. Degrees of triangulation were achieved by cross-checking the results of the interviews with those of the document analysis (see chapters 6, 7 and 8 for examples of triangulation). Here it is important to clarify that interviewees' responses formed the basis of chapters 6 (Brazilian case study) and 7 (English case study) and the documents analysed were utilised mostly in chapter 8 (comparison of both case studies) in order to triangulate the findings of the interviews. For Bryman (2004, p. 454), triangulation 'implies that the results of an investigation employing a method associated with one research strategy are cross-checked against the results of using a method associated with other research strategy'. Although Bryman (2004) means combining qualitative and quantitative strategies to cross-check results, triangulation is still a useful procedure for validating data collected from various different techniques (e.g. interviews and document analysis) associated with the same strategy (e.g. qualitative), which is the case in the present research, enhancing, therefore, the quality of qualitative research (see section 3.2).

Table 3.7 shows the research design employed in this study.



Table 3.7: Research design.

Aim	Research Question	Objectives	Research Strategy and Methods of Data Collection	Methods of Data Analysis
To analyse the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England.	How important are environmental issues in the decision-making in the planning process of major sports events and related infrastructure?	<p>1. To provide a comparative critique of the planning and environmental impact assessment systems in Brazil and England to understand what these systems seek to deliver with particular reference to major sports events and associated infrastructure.</p> <p>2. To examine the implementation process of EIA regulation, which corresponds to the implementation phase of the planning, in the contexts of a Brazilian and an English major sports event.</p> <p>3. To identify and compare major problems and success factors with regard to EIA and decision-making in the contexts of a Brazilian and an English major sports event.</p> <p>4. To examine the extent to which lessons may be learnt from the English and Brazilian experiences on major sports events for the Brazilian context as well as elsewhere.</p>	<p>Case study: London 2012 and Rio 2007</p> <p>Semi-structured interviews: with key-actors from government, organising committees, delivery bodies, EIA consultancies, private sector, NGOs, residents' associations, environmentalists and independent bodies involved in the planning process of both major sports events.</p> <p>Document analysis: on official documents derived from sources of the government, delivery bodies, organising committees, private sector, EIA consultancies, NGOs and independent assurance bodies related to both case studies in Brazil and England.</p>	<p>Content analysis using</p> <p>Document analysis</p> <p>Triangulation</p>

Source: The author, 2011.

### **3.4 Conclusions**

This chapter has described the methodology developed for this study in order to address the research question, aim and objectives. First, main philosophical paradigms and their implications for doing social research were discussed in order to explain the approach that guides this research. Then, the mix of qualitative methods selected for the research was set out, including case study, interviews and document analysis. As this research aims to analyse the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England, it was thought that a case study strategy would provide an in-depth analysis of such issues in the context of the selected cases: London 2012 and Rio 2007. Semi-structured interviews were also selected as a method to gain a detailed understanding of the decision-making in the planning process of the case studies and the contribution of EIA, based on interviewees' perceptions and opinions. In order to complement the interviews, another method, document analysis, was also employed in this research to cross-check the data collected from the interviews. The combination of case studies, interviews and document analysis proved to be successful and allowed the collection of rich data, which are the foundation for a solid analysis provided in subsequent chapters.

Finally, the methods used to analyse the data collected through the techniques mentioned above were introduced: content analysis using coding technique, document analysis and triangulation. The next chapter provides a comparative critique of the planning systems in England and Brazil with particular reference to major sports events and related infrastructure.

## **4 PLANNING CONTEXTS IN ENGLAND AND BRAZIL**

### **4.1 Introduction**

This chapter outlines the planning contexts in England and Brazil by exploring their regulatory frameworks in terms of key planning agencies and documents, while also examining both planning systems in relation to their approaches and constraints. The chapter starts by presenting an overview and some brief historical aspects of the urban planning in Brazil; the history of the evolution of the English planning system was not presented in this chapter mainly because it has been very well documented elsewhere (see Rydin, 2003). This is followed by an introduction to the key planning agencies and documents at national, regional and local levels in England and Brazil. It should be noted that the English planning system has changed as a result of the Planning Act 2008 and that it is currently being reformed in line with the agenda of the government elected in 2010. Although the planning system has changed, the description provided here relates to the system (Planning and Compulsory Purchase Act 2004) under which the London 2012 Olympic Games case study was conducted (see chapter 3, section 3.3.1). A summary of the key changes related to the issues discussed in the present chapter is presented in section 4.4. Finally the chapter provides a comparative critique of the English and Brazilian planning systems with regard to their approaches, public participation and constraints.

### **4.2 An overview and brief historical aspects of the Urban Planning in Brazil**

An overview and some brief historical aspects of the Brazilian Planning System are presented in this chapter in order to provide a background for understanding how the system operates in that country. Although the development of the planning system in Brazil has been documented elsewhere (e.g. see Maricato, 2006), it was thought to be useful for the contextual background of this research to provide a summary of the key issues regarding the challenges and history of urban planning in Brazil.

Urban planning in Brazil is a complex system due to several significant aspects. Firstly, Brazil is the fifth largest country in terms of area, the fifth most populous country and the fourth most populous democracy in the world (Europa World Year Book, 2008). Secondly, regarding the political structure, Brazil is a federal republic formed by a union of 26 States, the Federal District, where the capital (Brasilia) is located, and the Municipalities.

At the federal level, there are 23 Ministries (e.g. Agriculture, Cities, Science and Technology, Culture, Defence, Transport, Health, Work, Tourism, Environment, among others), 12 Agencies (e.g. Development of Amazon, Electricity, Telecommunications, Sanitation, Water) and 18 Foundations (e.g. Studies and Projects, Brazilian Institute of Geography and Statistics, Economic Research, among others) just to mention some of the key elements of the federal administration.

At the state level the structure is no less complex since in each state there is a different number of secretariats and other administrative bodies. A similar situation can also be found at the municipal level, especially considering that there are around 5,565 municipalities in the country (Brazilian Institute of Geography and Statistics, 2011).

Figure 4.1 shows the Brazilian States.

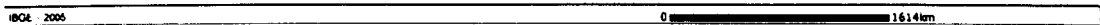


Fig. 4.1: Brazilian States.  
Source: Brazilian Institute of Geography and Statistics (IBGE), 2005.

Thirdly, Brazil has been transformed from a large rural country to a highly urbanized one. In 1940, the population was estimated as 41 million inhabitants, of which 30% were located in urban areas and 70% in rural ones. By 2008 the country's population was approximately 184 million inhabitants, of which 6.6 million families were homeless, 11% of houses did not have any access to drinking water and nearly 50% were not connected to sewage systems; consequently, squatter settlements have spread in many parts of the country (Ministry of Cities, 2008a). In 2010, when the last demographic census was carried out, the number of people had increased to 190 million and 84% were living in urban areas.

Table 4.1 below illustrates the population growth in the country from 1940 to 2000, as well as its rapid urbanization.

Table 4.1: Population growth in Brazil: 1940 to 2000.

<b>Year</b>	<b>Total population (million)</b>	<b>Urban population (million)</b>	<b>% (urban)</b>
1940	41.2	12.8	31,0
1950	51.9	18.7	36,0
1960	70.1	31.3	44,6
1970	93.1	52.0	55,8
1980	119.0	80.4	67,5
1991	146.8	110.9	75,5
2000	169.7	137.9	81,2

Source: The author, adapted from Brazilian Institute of Geography and Statistics (IBGE) 2008.

Due to the continental scale of the country and its rapid urban growth, as well as its complex political structure, urban planning represents a challenge for the Brazilian government. In order to understand the legal urban planning process in the country it is necessary to review the public urban policies implemented by the federal government over the years as well as the historical facts and social movements relevant to Brazilian urban planning.

During Brazilian history, there have been several attempts to formulate an urban policy at the federal level. However, according to Maricato (2006) the clearest attempt to formulate an urban policy by the federal government took place during the military regime (1964-1985).

The document produced at that time, in 1973, named the 2<sup>nd</sup> National Development Plan, sets out the directives for a National Urban Development Policy (Ministry of Cities, 2004). At that time, urban planning had a prestigious position, although its practical results were considered inefficient, since 'master plans were applied to parts of cities, ignoring poor conditions of settlements and the necessities of the major urban population' (Ministry of Cities, 2004, p. 9). In addition, the population was not consulted during the planning process, which means it was a top-down and non-participatory process.

The financial crises that hit the country in 1980 as well as the bankruptcy of the Housing Finance System and the Sanitation Finance System were responsible for the collapse of the urban policies implemented by the authoritarian regime

(Maricato, 2006). According to Maricato (2006), since 1986, urban matters have not received much attention from the federal sphere. At this point it is necessary to mention that the authoritarian regime had been replaced in 1985; democracy was fully re-established in 1988 when the current Federal Constitution was enacted. Despite the little federal attention given to urban issues, Rolnik (2006) highlights how the 1990s represent, in the country, a period of intense debate between political parties and local governments in relation to citizens' roles and city management.

Following this thinking, in the same period (between 1980 and 1990), an important social movement was consolidated, namely Urban Reform, which brought together a range of different professionals, social leaderships, NGOs, workers' unions, politicians, members of the Catholic Church and public servants, seeking federal government's attention on urban issues. One of the most important achievements of the Urban Reform Movement was the campaign for a law project for urban reform in the 1988 Constitutional National Assembly. The incorporation of urban issues in two chapters of the Federal Constitution has allowed the inclusion, in state and municipal constitutions, of democratic proposals in relation to the social role of property and the city (Ministry of Cities, 2004).

Another relevant achievement of this movement took place 13 years later, in 2001, with the enactment of the Federal Law no. 10.257, entitled City Statute, which sets out the new juridical base for urban policy in Brazil, regulating the original chapters 182 and 183 on urban policy introduced by the 1988 Constitution (Maricato, 2006; Fernandes, 2003).

Maricato (2006) outlines how proposals for the creation of a federal institution focused on urban policies had been formulated several times during the social movement for urban reform. However, only in 2003 was the establishment of the Ministry of Cities signed by the President of the Republic, which represents an innovative action in terms of establishing public urban policies in Brazil. Next sections examine planning agencies and main planning documents in both countries.

### 4.3 Relevant agencies for spatial planning in England and urban planning in Brazil

The English and Brazilian spatial planning frameworks are both organised into three planning tiers: national/federal, regional/state and local/municipal. In England, at the national level, the agencies relevant for spatial planning, including planning for major infrastructure, are the Department for Communities and Local Government (DCLG), the Department for Environment, Food and Rural Affairs (DEFRA), the Department for Culture, Media and Sport (DCMS) and the regional Government Offices (GOs). In Brazil, at the federal level, the Ministry of Cities is the one responsible for defining policies and programmes for urban planning in the country. Sometimes, however, there is joint working between this Ministry and others in order to achieve the objectives of urban planning policies.

At the regional level in England, the agencies in charge of spatial planning at the time of the research were the Regional Planning Bodies (RPBs). At the lowest tier of the planning system, local planning authorities such as county councils, district councils, unitary councils, metropolitan district councils and London boroughs are expected to prepare plans at the local level and carry out control of development, including Environmental Impact Assessment (EIA). In relation to state and municipal spheres in Brazil, planning secretariats frequently set up their own urban planning strategies in line with the national urban planning policies, the City Statute and the master plans (see section 4.4). In some cases, municipalities may have specific agencies for urban planning. That is the case in the city of Curitiba, which is considered a model in terms of urban planning in the country. This city has an agency called Curitiba Urban Planning Institute (*Instituto de Planejamento Urbano de Curitiba*), which coordinates the planning process for the whole municipality (IPPUC, 2009).

The planning agencies mentioned above (and their roles before the recent changes of planning law and system in England) are presented in detail below in the same order as above: national/federal, regional/state and local/municipal levels.



### *National Level*

The Department for Communities and Local Government (DCLG), in England, has a wide range of responsibilities. One of its competences is to issue National Planning Policy Statements (PPSs) and Regional Spatial Strategies (RSSs). The department also shares with Government Offices (GOs) the task of scrutinizing and improving development plans and development control.

Cullingworth and Nadin (2006) point out that this department not only integrates regional and local governments, but also brings together issues related to housing, planning and regeneration, neighbourhood renewal and social exclusion. Such issues can be identified in the department's strategic priorities (Cullingworth and Nadin, 2006):

- a) Make sure people have decent places to live, improving the quality of local environments and neighbourhoods;
- b) Reduce social exclusion and support vulnerable groups;
- c) Deliver better public services by ensuring decisions are made in line with the level they are related to (regional, local or neighbourhood).

Following the priorities above as well as taking account of the reorganisation process this department has experienced during its existence, it seems in Cullingworth and Nadin's words that the Department for Communities and Local Government (DCLG) is mostly responsible for urban planning, while the Department for Environment, Food and Rural Affairs (DEFRA) deals with rural and environmental planning issues and, finally, the Department for Culture, Media and Sport (DCMS) addresses heritage, tourism and sport planning (Cullingworth and Nadin, 2006). In addition, DEFRA is in charge of six executive agencies, although the ones related to planning are two: Natural England and the Environment Agency, whilst DCMS has oversight of over forty executive and advisory non-departmental public bodies, such as the British Library, the British Tourism Authority, the National Heritage Memorial Fund and English Heritage (Cullingworth and Nadin, 2006).

In terms of major infrastructure projects, it is important to highlight that in October 2009 an Infrastructure Planning Commission (IPC) was established under the Planning Act 2008 (IPC, 2011a). This Commission, which is an independent body, examines applications for nationally significant infrastructure projects, such as railways, power stations, airports, among others (IPC, 2011b). The IPC decision-making process includes the following elements: a) pre-application; b) acceptance by the IPC; c) pre-examination; d) examination; e) decision; and f) post-decision (IPC, 2011c).

Turning the attention to the federal urban planning framework in Brazil, the structure of the Ministry of Cities is based on the three key social problems of the country: housing, sanitation and transport. With the purpose of addressing better the key areas above, the Ministry of Cities has established four secretariats, as follows: National Secretariat of Housing, National Secretariat of Environmental Sanitation, National Secretariat of Transport and Urban Mobility and National Secretariat of Urban Programmes.

Figure 4.2 below shows in outline the structure of the Ministry of Cities, encompassing the four national secretariats: Housing, Sanitation, Transport and Urban Programmes.

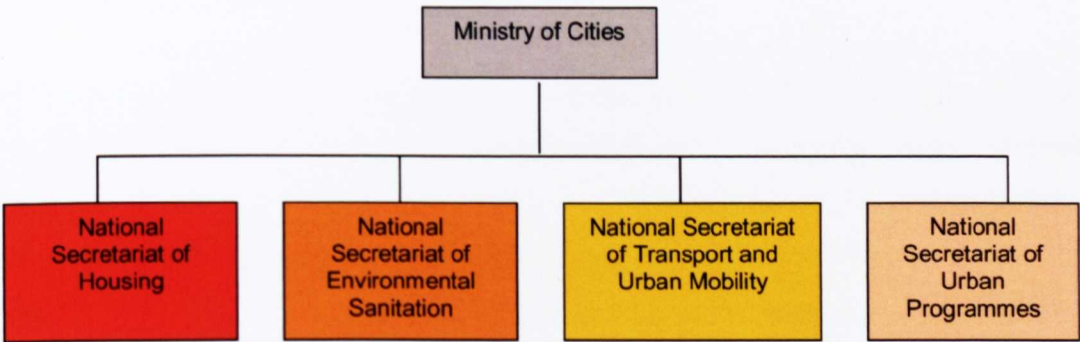


Fig. 4.2: Structure of the Ministry of Cities in Brazil.  
Source: The author, 2008.

It is worth mentioning that the way the Ministry of Cities is organised illustrates an important example of policy integration since it integrates housing, sanitation and transport. Moreover, it is also important to point out that policies in Brazil

are usually fragmented, which means each administrative body has its own policies according to the sector or area they are responsible for.

Urbanization and urban policies in Brazil used to be based on a fragmented vision. In order to overcome this paradigm the Ministry of Cities has been created, to integrate urban policies through the territory reality of the country (Ministry of Cities, 2004, p. 7).

Therefore, the paradigm adopted by the Ministry of Cities represents an advance for the Brazilian public administration.

In accordance with the participatory agenda of the current federal government formed by the Workers Party (*Partido dos Trabalhadores – PT*), a participatory process to develop the so called National Policy for Urban Development was started. According to this principle, the National Policy for Urban Development has been built based on a democratic and decentralised process with popular participation (Ministry of Cities, 2004).

With the objective of developing such a policy, the Ministry of Cities set up the 1<sup>st</sup> National Conference of Cities, in 2003, and the second one in 2005. As soon as the national conferences had finished, the state and municipal ones took place with the purpose of debating and analysing proposals as well as electing delegates for the 3<sup>rd</sup> National Conference.

Moreover, during the 1<sup>st</sup> National Conference, the *Conselho das Cidades* (Council of Cities) and its four Technical Chambers, each one related to each National Secretariat (Housing, Sanitation, Transport and Urban Programmes) were established (Maricato, 2006). Officially, their activities started in 2004. The Council of Cities has approved the proposals for the creation of the following national policies: housing, environmental sanitation and transport (which includes traffic and urban mobility). It has also approved the National Campaign for the establishment of Participatory Master Plans for the municipalities.

The 3<sup>rd</sup> National Conference of Cities, which took place in 2007, aimed to debate and reflect on how the policies and investments in the three levels of the

government have been contributing to change the logic of fragmentation of inter-governmental (federal, state and municipal) actions (Ministry of Cities, 2008b).

According to this context, it seems there is a changing course in the way policies are made in the country, since the National Policy for Urban Development should not be seen as a sum of housing, sanitation and transport policies; instead, it presupposes an integration of these policies and other social policies, as can be seen in figure 4.3 below:

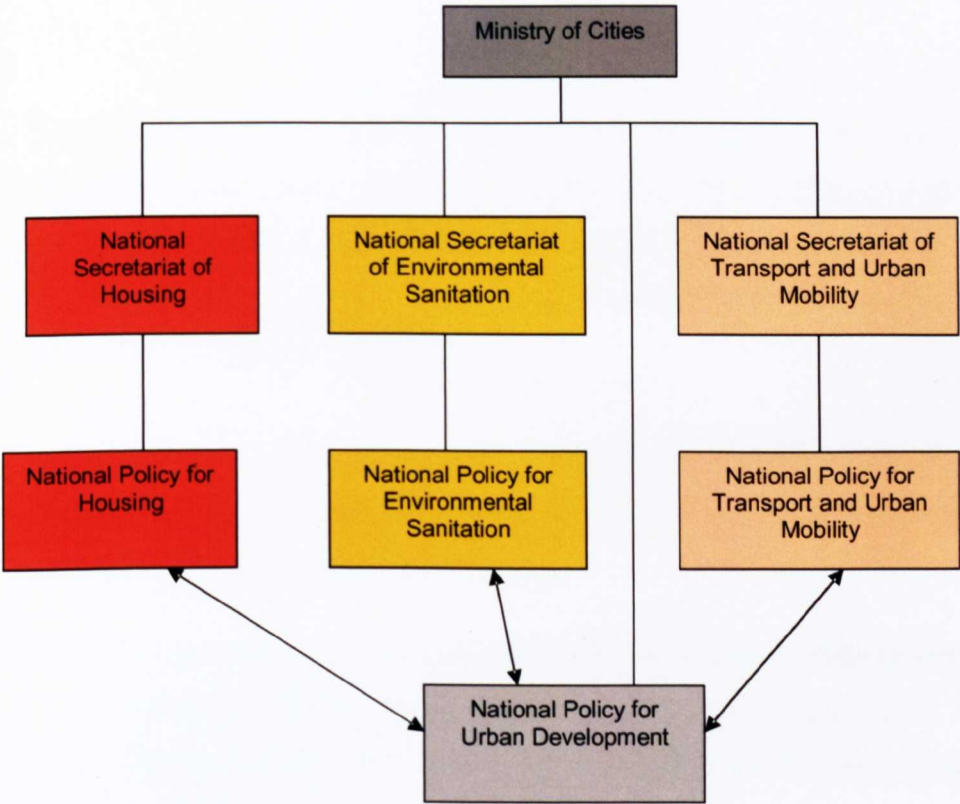


Fig. 4.3: Integration of national policies established by the Ministry of Cities in Brazil.  
Source: The author, 2009.

*Regional Level*

At the regional level, there were nine Government Offices (GOs) across England, which means each region in the country had its own Government Office. They represented central Government in the regions and their purpose

was to 'offer experience and expertise to Whitehall Departments in the development of policy and in the way that policies are best implemented' (Government Offices for the English Regions, 2009a, n.p.).

Besides the nine English Regions, it is important to point out that there are twelve Whitehall Departments at the national government level (e.g. DCLG, DEFRA and DCMS), which were directly linked to GOs. This link, which brought together the activities and interests of different Whitehall Departments, made the Government Offices capable 'to join up the delivery of Government policies across the English regions' (Government Offices for the English Regions, 2009a, n.p.).

Government Offices also jointly worked with regional partners 'to develop, implement and monitor 'Regional Spatial Strategies'' (Government Offices for the English Regions, 2009b, n.p.) as well as with local authorities to help them 'to promote better policy integration across the country' (Government Offices for the English Regions, 2009c, n.p.).

In order to understand better the competences of GOs, a list of some of their previous specific planning functions follows below (Government Offices for the English Regions, 2009d, n.p.):

- a) In the case of the Government Office for London, liaising with the Greater London Authority on the preparation of the London Plan, the Regional Spatial Strategy for London, and deciding whether any changes need to be made;
- b) Scrutinising draft development plans prepared by local authorities to ensure they have taken account of national and regional policy and guidance;
- c) Supporting local authorities in the transition to and preparation of their Local Development Frameworks;
- d) Looking at individual planning applications which may raise issues that have more than just local importance, and advising ministers whether they need to intervene;

- e) Monitoring local authority development control performance, promoting good practice and engaging Planning Advisory Service to support local authorities where necessary.

The Regional Planning Bodies (RPBs) were in charge of the process of reviewing the Regional Spatial Strategy and preparing draft revisions jointly with regional and local stakeholders (Government Offices for the English Regions, 2009b). It is also important to point out that there was a Regional Planning Body for each of the nine English regions.

According to the Government Offices for the English Regions (2009b), the process carried out by the Regional Planning Bodies could be described as follows. The process started with the preparation of the draft strategy and its publication for at least 12 weeks for public consultation. Once the public consultation stage had finished, an Examination in Public was held in order to discuss and test the Regional Planning Body's proposals. Next a panel, which was independent of the Regional Planning Body and central Government, supervised the process. After the Examination in Public, the panel elaborated a report of findings and suggestions to the Government regarding the way the draft Regional Spatial Strategy could be improved. Then the Government issued Proposed Changes to the draft strategy, considering the Panel's recommendations and representations on any matters not taken into account at the Examination in Public. Finally, the Secretary of State made any final amendments he or she considered relevant and issued the final Regional Spatial Strategy, which provided the statutory base for local authorities to prepare their Local Development Documents.

### *Local Level*

Cullingworth and Nadin (2006) explain that the types and names of Local Planning Authorities in England may vary according to the area they are related to. The authors illustrate this point by stressing that:

- a) In most English rural areas there is a two-tier structure with both *county councils* (at a higher level, responsible for preparing and maintaining mineral and waste development schemes, drawing up minerals and waste development frameworks and also collaborating with the Regional Planning Bodies in preparing sub-regional strategies) and *district councils* (at a lower level, in charge of preparing and maintaining Local Development Schemes and drawing up Local Development Frameworks);
- b) Many provincial cities and a few rural areas have a single-tier structure with *unitary councils* which are responsible for all local government planning functions;
- c) In the metropolitan areas there is a unitary structure with *metropolitan district councils* which are in charge of all local planning functions;
- d) And in London there is a 2-tier structure with *London boroughs*, which are responsible for local government planning functions in line with the strategic policy of the Greater London Authority (GLA).

It is important to bear in mind that local planning authorities have an important influence on the quality of people's lives, since major issues, such as education, community safety, caring for the vulnerable, clean streets, well-planned neighbourhoods, housing, leisure and cultural facilities can all be improved through the actions of local authorities (Government Offices for the English Regions, 2009c).

Figure 4.4 shows the agencies of spatial planning in England up to 2010 based on the three government levels: national, regional and local.



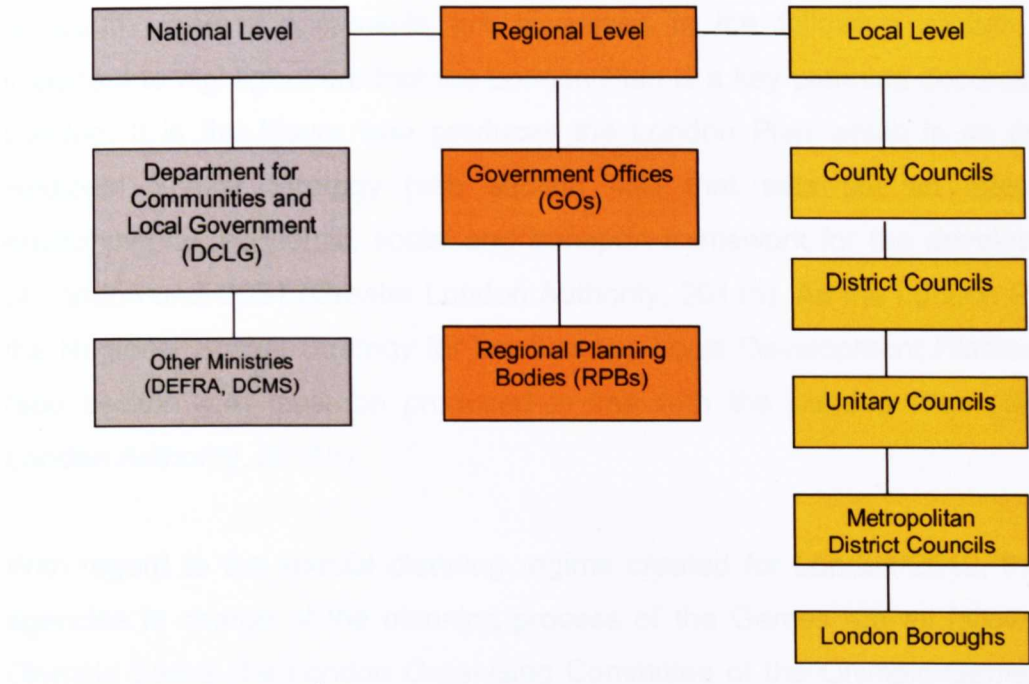


Fig. 4.4: Agencies of planning in England based on the Planning and Compulsory Purchase Act 2004.  
Source: The author, 2009 based on Cullingworth and Nadin, 2006.

In relation to the spatial planning regime in London, besides London boroughs there is a number of other key stakeholders with roles and responsibilities in delivering planning strategies for the capital: Greater London Authority, Mayor of London, London Assembly and Central Government (Greater London Authority, 2011a). The GLA supports both the work of the Mayor by contributing to the development and delivery of strategies for London and of the London Assembly by scrutinising the work of the Mayor and representing the interests of Londoners (Greater London Authority, 2011a). The Mayor of London is in charge of the strategic development of London and he or she holds the executive power of the GLA (Greater London Authority, 2011a). The London Assembly is composed by 25 elected members, whose role is to examine the Mayor's actions, representing the interests of Londoners (Greater London Authority, 2011a). Central Government engages with local and regional government agencies in London through the Government Office for London (GOL) (Greater London Authority, 2011a).



Although planning documents are discussed in the following section, it is important to highlight here that the London Plan is a key planning document for London. It is the Mayor who produces the London Plan which is an overall Regional Spatial Strategy (see section 4.4) that sets out an integrated environmental, economic, social and transport framework for the development of London until 2031 (Greater London Authority, 2011b). As the London Plan is the Regional Spatial Strategy for London, the Local Development Frameworks (see section 4.4) must be produced in line with the London Plan (Greater London Authority, 2011b).

With regard to the special planning regime created for London 2012, the key agencies in charge of the planning process of the Games are as follows: the Olympic Board, the London Organising Committee of the Olympic Games and Paralympic Games (LOCOG), the Olympic Delivery Authority (ODA) and the Olympic Park Legacy Company (OPLC) (Greater London Authority, 2011c). The Olympic Board is responsible for the strategic coordination and monitoring of the London 2012 project, making sure the Games meet the commitments made to the IOC as well as ensuring a sustainable legacy is delivered from hosting the Games (London 2012, 2012a). LOCOG is the private sector company in charge of staging and hosting the Games while the ODA is the public body responsible for building the new venues and infrastructure needed for the Games (London 2012, 2012a) (see chapter 3, section 3.3.2.1). The OPLC is the not-for-profit organisation in charge of the long-term planning, development and management of the Olympic Park after the 2012 Games (Olympic Park Legacy Company, 2011a, n.p) (see chapter 3, section 3.3.2.1). Within these key agencies, ODA and LOCOG are the two key organisations responsible for delivering London 2012 (London 2012, 2012a).

Furthermore, it should be noted that the Mayor of London is directly involved with all the agencies mentioned above, as he is: the co-chair of the Olympic Board, a founder member and shareholder of LOCOG, one of the funders of ODA and a founder member in partnership with central government of OPLC (Greater London Authority, 2011c). In addition, the Greater London Authority and the London Development Agency are working along with the Mayor to

ensure that London maximises all the benefits the Games can bring to the city in terms of urban regeneration, infrastructure, jobs, sport, etc (London 2012, 2012b).

#### **4.4 The English and Brazilian frameworks of spatial and urban planning policies and key documents**

As the English spatial planning framework and Brazilian urban planning framework are divided into three different levels, at the national/federal sphere the existing policies and statutory instrument in England are the Planning Policy Statements (PPSs) and the Planning and Compulsory Purchase Act 2004, while in Brazil there are National Policies and the City Statute. At the regional level in England, the main document on spatial planning is the Regional Spatial Strategy and, at local/municipal level in England and Brazil, the Local Development Framework and the Master Plan, respectively.

##### *National/Federal Level*

Planning Policy Statements (PPSs) in England were documents prepared by the government in order 'to explain statutory provisions and provide guidance to local authorities and others on planning policy and the operation of the planning system' (DCLG, 2009, n.p.). In other words, Planning Policy Statements set out the national planning policies. Those statements also detail the relationship between planning policies and other policies which have an important influence on issues of development and land use (DCLG, 2009). There are eleven Planning Policy Statements (PPSs) currently set out by the government, which cover issues related to (DCLG, 2009): sustainable development (PPS1), housing (PPS3), town centers (PPS6), rural areas (PPS7), biodiversity and geological conservation (PPS9), waste management (PPS10), regional spatial strategies (PPS11), local spatial planning (PPS12), renewable energy (PPS22), pollution control (PPS23), development and flood risk (PPS25). Following the subjects addressed by the Planning Policy Statements, it is possible to point out two statements which deal with major projects: PPS11 – Regional Spatial Strategy and PPS 12 – Local Spatial Planning. Both of these state that

infrastructure major projects should be taken into consideration when preparing regional and local spatial planning. PPS1, PPS9, PPS10, PPS22, PPS23 and PPS25 should also be considered when planning major infrastructure projects, such as major sports events.

The Planning and Compulsory Purchase Act 2004 is a key planning document and it represents an act of the UK Parliament, which refers to 'spatial development and town and country planning, and the compulsory acquisition of land' (Planning and Compulsory Purchase Act 2004a, p. 1). This Act also defines the regional and local levels of planning and the main planning documents for each level. In terms of major projects, the Planning and Compulsory Purchase Act 2004 contains a section called Major Infrastructure Projects that deals with this issue. According to this section, major projects should apply for planning permission and for the approval of a local planning authority whether the development is of national or regional importance (Planning and Compulsory Purchase Act 2004b).

Turning the attention to the Brazilian context, in accordance with the Federal Constitution (1988), power in Brazil is decentralised, which empowers states and particularly municipalities to make their own decisions in terms of planning and management. According to this system, the federal level sets out policies and general strategies towards urban planning and more detailed legislation can be found at state and, mainly, at municipal level. Therefore, the role of municipalities is crucial in terms of urban planning.

Regarding this issue, Azevedo (2008, p. 45) states that 'the Brazilian Constitution (1988) not only guarantees the independence of state and municipal levels but requires them to develop their own legal system for the management of their cities called directives for urban planning'. Azevedo (2008) also outlines the benefits of this decentralised model, since, due to the great regional cultural diversity in the country, it helps to ensure that local characteristics are not overlooked as could happen in a centralised model.

In line with the aspects outlined above, the City Statute (Federative Republic of Brazil, 2001), which is a key planning document aiming to regulate the original chapters on urban policy introduced by the Federal Constitution (1988), reinforces the autonomy of municipalities and the legal responsibility of all levels of government for urban planning. At the federal level, one of the responsibilities of the government defined by the City Statute of 2001 is 'to institute guidelines for urban development, including housing, basic sanitation and urban transportation' (Federative Republic of Brazil, 2001, p. 2).

### *Regional Level*

The Planning and Compulsory Purchase Act 2004 states that each of the nine English regions (North East, Yorkshire and Humberside, North West, East Midlands, West Midlands, East Anglia, South West, South East and London) must make a regional spatial strategy (Planning and Compulsory Purchase Act 2004c).

Figure 4.5 illustrates the English regions:



Fig. 4.5: The Nine English Regions.  
Source: Publications of Parliament, 2007.

This Act also states that a Regional Spatial Strategy must set out the Secretary of State's policies regarding the development and use of land within the region (Planning and Compulsory Purchase Act 2004c).

A Regional Spatial Strategy also 'provides the overall spatial vision for the entire region, identifying the broad locations for growth, often by identification of sub-regions, and major infrastructure requirements, together with the housing numbers to be provided for in Local Development Documents' (DCLG, 2008, p. 6). Moreover, such strategy is a product of engagement with local authorities and other key actors, providing the regional framework for creating Sustainable Communities Strategies and Core Strategies at the local level (DCLG, 2008).

According to the Planning Policy Statement 11 (DCGL, 2004), which sets out the procedural policy on the nature of Regional Spatial Strategies (RSSs), the Regional Spatial Strategy should: a) provide a broad development strategy for the region for a period of 15 to 20 years; b) address regional or sub-regional issues that will often cross the boundaries of county or unitary authorities and,

on occasion, of district's, and take advantage of the range of development options that exist at that level; c) be consistent with and supportive of other regional frameworks and strategies; and d) provide a clear link between policy objectives and priorities, targets and indicators.

With regard to major projects, a Regional Spatial Strategy should also take these into consideration, since they are linked to infrastructure, which is one of the key elements to be addressed by regional spatial strategies.

### *Local/Municipal Level*

In England a Local Development Framework is a collection of local development documents prepared by a local planning authority which delivers the spatial planning strategy for its area (DCLG, 2008). In other words, Local Development Frameworks (LDFs) 'set out the local planning authority's policies and proposals for the development and use of land in their area over a period of at least 10 years' (Government Offices for the English Regions, 2009e, n.p.). Such frameworks must take into account the national and regional policies issued by the Secretary of State responsible for planning.

The core strategy is the key plan within the Local Development Framework (DCLG, 2008). Planning Policy Statement 12 (DCLG, 2008), which sets out the Government's policy on local spatial planning, outlines that every local planning authority should produce a core strategy, including the following aspects: a) an overall vision for the area and the places and how it should develop; b) strategic objectives for the area focusing on the key issues to be addressed; c) a delivery strategy for achieving these objectives; and d) clear arrangements for managing and monitoring the delivery of the strategy. Furthermore in the preparation process of core strategies, some relevant documents are required to be produced. They are as follows (DCLG, 2008):

- a) Statement of Community Involvement, which should explain clearly the process and methods for community involvement in different local development documents and stages of plan preparation as well ensuring

all groups will be engaged in the process, especially those not normally involved.

- b) Sustainable Community Strategy, which sets out the strategic vision for a place and its links with regional strategies. This means that core strategies should be prepared in line with their Sustainable Community Strategies.
- c) Sustainability Appraisal, which is required by the Planning and Compulsory Purchase Act 2004 to be an appraisal of the economic, social and environmental sustainability of the plan.
- d) Local Development Scheme, which sets out all the development plan documents which will be prepared and when they are going to be produced.

The core strategy should also identify the physical, social and green infrastructure needed to enable the types of developments proposed for the area. Planning Policy Statement 12 (DCLG, 2008, p. 8) highlights that effective infrastructure planning takes into consideration infrastructure needs and costs; phasing of development; funding sources and responsibilities for delivery. In relation to the infrastructure issue, it is important to note that the Government made provision for a Community Infrastructure Levy (CIL) in the Planning Bill presented to Parliament in 2008 (Planning Act, 2008). According to this new document, local authorities are empowered to charge CIL on new developments in order to contribute to financing the infrastructure needed to support growth (CIL, 2011). The Community Infrastructure Levy (CIL) became effective in April 2010 (CIL, 2011).

Figure 4.6 illustrates the English framework of spatial planning policies and documents, in line with national, regional and local levels.



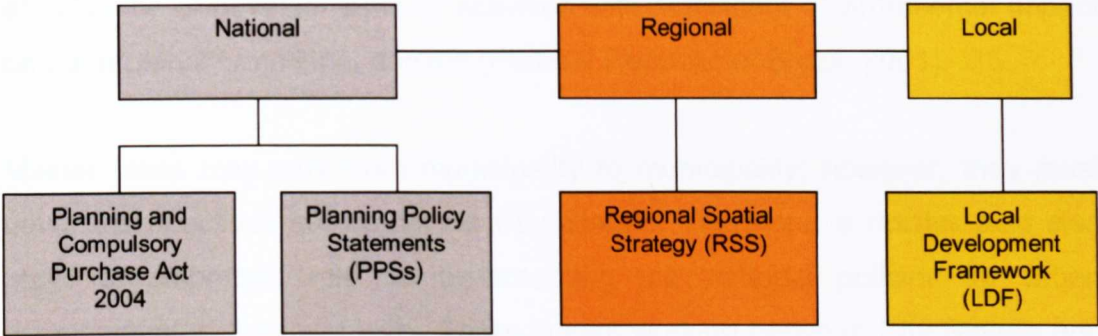


Fig. 4.6: The English framework of spatial planning policies and documents based on the Planning and Compulsory Purchase Act 2004.  
Source: The author, 2009 based on Cullingworth and Nadin, 2006.

In relation to the municipal responsibility in Brazil, the City Statute ‘confirmed and widened the fundamental legal-political role of municipalities in the formulation of directives for urban planning, as well as in conducting the process of urban development and management’ (Fernandes, 2003, p. 1). For this purpose, there is a relevant municipal urban planning instrument, set out by the City Statute, entitled Master Plan (*Plano Diretor*).

Furthermore, the City Statute is also used as an instrument to implement the national policies for urban development. It sets up the general directives for urban planning in terms of housing, sanitation, transport and other sectors, which must be taken into account by municipalities when preparing their master plans. Therefore, the ‘City Statute helps municipalities in implementing the National Policy for Urban Development’ (Ministry of Cities, 2009, p. 1), ensuring master plans cover the main urban issues.

The master plan which is the basic instrument of municipal urban development is part of the municipal planning process and requires annual budgets to incorporate the rights and priorities established in the plan (Federal Republic of Brazil, 2001).

The master plan is mandatory for cities: a) with more than 20,000 inhabitants; b) which are members of metropolitan regions and urban conglomerations; c) which are members of special tourist interest areas; and d) integrated in areas



of influence of developments or activities with significant environmental impact on the regional or national domain (Federal Republic of Brazil, 2001).

Master plans may vary from municipality to municipality; however, they must cover the directives set up by the City Statute. Therefore, a master plan also plays an important role in implementing the national policies for urban development at the local level. There is joint working between City Statute and Master Plan in order to achieve the objectives of the national policy for urban development. To illustrate this point, for instance, the Ministry of Cities, through the National Secretariat of Sustainable Urban Mobility, sets up the National Policy for Sustainable Urban Mobility. To ensure that this national policy will be implemented at the municipal level, master plans are required, which are developed in line with the City Statute.

As stated in section 4.1, the English planning system has changed as a result of the Planning Act 2008 and it is currently being reformed in line with the agenda of the government elected in 2010. In order to clarify such changes a summary of the key modifications related to the issues discussed in sections 4.3 and 4.4 is presented below in tables 4.2 and 4.3:

Table 4.2: Key changes in the Planning System under the Planning Act 2008.

Changes provided by the Planning Act 2008			Description
Regional functions			Regional Planning Bodies (RPBs) can transfer their functions to the Regional Development Agency (RDA) for their region (see section 4.3).
Infrastructure Commission (IPC)	Planning		The IPC examines applications for nationally significant infrastructure projects (see section 4.3).
Community Infrastructure Levy (CIL)	Infrastructure	Levy	Local authorities are empowered to charge CIL on new developments in order to finance the infrastructure needed to support growth (see section 4.4).
Climate change policies			Climate change policies must be included in the preparation of Regional Spatial Strategies (see section 4.4) and Development Plan Documents (previously Local Development Documents) (see section 4.4).

Source: The author, 2011 based on the Planning Act 2008.

Table 4.3: Key changes in the Planning System proposed by the new government (2010).

Regulatory Framework			Changes proposed by the new government (2010)
Infrastructure Planning Commission (IPC)			The IPC will be abolished by 2012 and it will be replaced by a new Major Infrastructure Planning Unit within the Planning Inspectorate (see section 4.3).
Government Offices (GOs)			The GOs closed in March 2011 and their functions were transferred to the relevant government departments (see section 4.3).
Regional Planning Bodies (RPBs)			The RPBs will be abolished along with regional plans by the end of 2011 (see section 4.3). Additionally RDAs would have final say in cases of conflict and could also be replaced by an informal set of regional public and private sector stakeholders working jointly on regional development. The role of local authority leader boards would be to bring stakeholders, such as RPBs and RDAs, together.
National Policy Statements (NPSs)			NPSs will be developed on nationally significant infrastructure projects such as energy, transport, water, etc (see section 4.4 for Planning Policy Statements). Sustainability appraisals of NPSs will incorporate SEA where applicable.

Source: The author, 2011 based on Planning Help, 2011 and Government Offices, 2011.

4.5 Comparison of the English and Brazilian planning systems in relation to their approaches, constraints and public participation

The relevant agencies for spatial planning in England and for urban planning in Brazil have been outlined in section 4.3 as well as the English and Brazilian frameworks of spatial planning and urban planning policies and key documents have been described in section 4.4, so it is important now to provide a comparative summary of both regulatory frameworks. Tables 4.4 and 4.5 below summarise the planning agencies and the key planning documents of England and Brazil in a comparative perspective:



Table 4.4: Relevant agencies for spatial planning in England and urban planning in Brazil.

English agencies	Brazilian agencies
Whitehall Departments (12)	Ministries (23)
Department for Communities and Local Government (DCLG)	Ministry of Cities
Department for Environment, Food and Rural Affairs (DEFRA)	Ministry of Environment, Ministry of Agriculture and Ministry of Rural Development
Department for Culture, Media and Sport (DCMS)	Ministry of Culture, Ministry of Tourism, Ministry of Sport
Government Offices (Gos) (9)	States (26 plus a Federal District)
Regional Planning Bodies (RPBs) (9)	-
Local Planning Authorities (LPAs)	Municipalities (5.565)

Source: The author, 2008.

Table 4.5: Planning policies and key documents in England and Brazil.

English framework	Brazilian framework
Planning and Compulsory Purchase Act 2004	City Statute
Planning Policy Statements (PPSs)	National Policies
Regional Spatial Strategy (RSS)	-
Local Development Framework (LDF)	Master Plan

Source: The author, 2008.

By comparing both planning systems it is apparent that there are several similarities in terms of planning agencies and planning policies and documents between the two countries. The first similarity is in respect of the tiers of planning, which are carried out at the three levels of government in England and Brazil: national/federal, regional/state and local/municipal. Secondly, it is possible to find the corresponding planning agency in Brazil for each one of the planning agencies in England (see table 4.4). Similarly, there is a close link between the planning policies and main planning documents of England and Brazil: the Planning and Compulsory Purchase Act 2004 corresponds to the City Statute; Planning Policy Statements are similar to National Policies and Local Development Frameworks to Master Plans, as shown in table 4.5.

However, one of the main differences between both systems examined is related to the fact that power is decentralised in Brazil whilst it is centralised in England (a situation that tends to change in line with the agenda of the current government in England). An important reason for power being decentralised in Brazil is due to the continental scale of the country, which makes planning a very complex system and a massive challenge for the federal government (see section 4.2 for the evolution of urban planning in Brazil).

As emphasised by Rydin (2003), the importance of knowledge related to the English planning system does not reside only in listing procedures and institutions and their cross-national scope. For this reason, it is also relevant to explore other aspects of the planning system such as its approaches, underlying philosophies and constraints in order to provide a sense of what the system seeks to deliver.

The Planning and Compulsory Purchase Act 2004 represents one of the most important reforms in the English planning system since this was first established in 1947 (Carpenter and Brownill, 2008). Under that Act spatial planning became the official form of planning in England and Wales and it has emerged in response to modernist planning which places planners and their expertise at the centre of the planning process (Rydin, 2011). The shift to spatial planning aims to bring together governance processes and concepts of collaborative planning by emphasising stakeholder engagement and policy integration across different tiers of government through such engagement (Rydin, 2011). Therefore, the consideration of stakeholder engagement is a central element in the English planning system (Carpenter and Brownill, 2008). This change is given effect by the establishment of Statements of Community Involvement (SCIs), which are discussed in this chapter in section 4.4. According to Carpenter and Brownill (2008), there are clear links between the government's objectives for the revision of the planning system in 2004 and the 'collaborative turn' in planning theory discussed previously in chapter 2, as both point towards mutual understanding, inclusivity and stakeholder engagement in the planning process.

Another key feature of the spatial planning in England is to be proactive rather than reactive in relation to urban development, as one of the key criticisms that zoning systems and development planning and development control systems, which are at the core of the English planning system, have attracted is related to the fact they are reactive in their essence, reacting to development proposals placed by other organisations (Rydin, 2011). In order to overcome such a limitation, spatial planning focuses on infrastructure provision with the purpose of leading development and urban change, as it 'puts a more development-friendly attitude at the heart of planning' in response to a planning which is seen as a 'restrictive bureaucratic exercise that constraints development' (Rydin, 2011, p. 33).

The English spatial planning and its focus on infrastructure provision as a path to guide development activities represent an important framework for major sports events not only from the perspective of attracting and developing them but also from the viewpoint of planning their legacy (urban regeneration, infrastructure) for the host city. It is argued that major sports events require a full range of related services and infrastructure in order to operate: water supplies, water treatment, drainage, sewage, gas, electricity, solid waste treatment, transport, communications, etc, to name a few without mentioning venues and sports facilities which are at the core of those events. For this reason, it is essential that the planning system along with the planning process of major sports events and related infrastructure pay particular attention to what is left after such events to ensure the long-term gain in terms of infrastructure and urban regeneration fostered by major sports events.

Turning the attention to Brazil, similarly to England, the Brazilian planning system was reformed in 2001 under the City Statute and such a reform set out clear links with ideas of collaborative planning and stakeholder engagement. The City Statute demonstrates its link with collaborative planning by stating that the democratic management of cities is provided through public participation in which citizens are encouraged to participate in the decision-making and monitoring processes of urban projects (Federative Republic of Brazil, 2001). This clearly reflects the 'collaborative turn' in planning discussed previously in

chapter 2, which seems to have influenced not only the English context but also the Brazilian one. Within this it is argued that the underlying philosophy of both planning systems is based on concepts of collaborative planning which have influenced the official faces of planning in Brazil and England after the respective planning reforms in 2001 and 2004.

Collaborative planning is a mode of planning practice that is supposed to be more effective in achieving specific goals, maintaining stability and adjusting to change whilst opening up the planning system for the full range of stakeholders to bring their concerns to the planning debate (Rydin, 2003). Communication and negotiation between stakeholders in order to achieve consensus or at least an agreement which is supported by the parties involved in relation to planning outcomes are key elements of the collaborative approach that underpins the English and Brazilian planning systems. Key to the emphasis of collaborative planning on encouraging debate among a range of stakeholders is the issue of democracy which is at the centre of planning (Rydin, 2011). The links between collaborative planning, deliberative democracy and participation in environmental assessment have been discussed in chapter 2 (see section 2.3). Based on that discussion provided in section 2.3 and on the analysis of the reformed planning systems in England and Brazil, it is clear that there is an increase interest in empowering the public to take part in planning discussions aiming to foster a form of deliberative democracy in practice.

However in practical terms planning is often regarded as not always being able to deliver people's expectations due to several issues: time and resources constraints; political pressures; scope limitations as planning is a public sector activity operating within a capitalism framework, etc. The translation of the ideas of collaborative planning underpinning both the English and Brazilian systems from their planning documents discussed in section 4.3 into practice may face several difficulties. Both planning systems claim for a more inclusive planning process through public participation and stakeholder engagement which seems to promote social change, however; according to Rydin (2003) limited moves have been made towards such a change. Some of the issues that constraint public participation (and consequently collaborative planning) is related to the

imbalance caused by power relations and conflict of interest between stakeholders which results in both different levels of participation and exclusion. According to Rydin (2011, p.125) it is necessary to 'accept that many participatory exercises will struggle with participation fatigue, skewed patterns of involvement and the unwillingness to leave personal interest behind in favour of working towards the collective interest'.

It will depend on both planning systems how to resolve such difficulties and constraints in the course of implementing their views for what England and Brazil should be like in terms of urban change within the next years. The new faces of planning in England (spatial planning) and Brazil (urban planning) seem to adopt a more integrative approach which does not consider only land use issues but also takes account of social and environmental dimensions. So both systems aim to deliver a more sustainable urban form based on a participatory/deliberative democracy, at least in line with their key planning documents at national, regional and local levels (e.g. City Statute, Master Plans in Brazil and Regional Spatial Strategies, Local Development Framework in England). On the other hand, it could be argued that there is little evidence in these planning documents on how they will overcome the problems of disjointed decision-making between different tiers of government in order to deliver better places for people to live in (Rydin, 2003).

## **4.6 Conclusions**

This chapter has explored the planning contexts in England and Brazil in terms of regulatory frameworks, approaches and constraints. It has identified planning agencies and planning documents at national, regional and local levels which are relevant for major projects such as major sports events and related infrastructure. The intention in presenting relevant agencies and documents related to planning is to understand how both systems operate at different levels of government and highlight that as major projects involve some degree of infrastructure, their planning lies across different agencies at national, regional and local levels. That is the reason why it is important to understand both systems since the way major projects, such as major sports events and related

infrastructure, are planned reflects each tier of the system. Concerning the approaches of the English and Brazilian planning systems, both systems were reformed under the influence of ideas of collaborative planning and stakeholder engagement. In line with this, public participation became an important element of the two systems, although constrained by several issues in practical terms as discussed in this chapter. The key message of both systems is about delivering a more sustainable urban form based on a participatory/deliberative democracy, at least according to their key planning documents at national, regional and local levels. Now that the planning contexts in England and Brazil have been presented, the next chapter focuses on the environmental impact assessment (EIA) in England and Brazil, which is closely linked to the planning procedures of both countries.



## **5 ENVIRONMENTAL IMPACT ASSESSMENT IN ENGLAND AND BRAZIL**

### **5.1 Introduction**

This chapter aims to present and compare the systems of environmental impact assessment in England and Brazil. The framework used to provide the comparison between the two systems is structured around the following elements: a) origins, definitions and the process; b) legal framework; c) weaknesses; d) consultation and participation; and e) other impact assessment tools. Within this context, the chapter starts by reviewing some key definitions of EIA, its origins and the main steps of the process. Next, this chapter explores the legal context of England and Brazil in terms of EIA regulations and institutions then moving to weaknesses identified in the scope of the two systems. Finally, consultation and participation in environmental impact assessment in England and Brazil as well as other impact assessment tools are compared in both countries.

### **5.2 Environmental Impact Assessment (EIA): origins, definitions and the process with particular reference to England and Brazil**

As discussed in chapter 2 (section 2.2), the EIA system was originally established in the USA in 1969 under the National Environmental Policy Act (NEPA) and since then it has spread worldwide, starting with developed countries, such as Canada (1973) and Australia (1974), and then moving to developing countries (Glasson, Therivel and Chadwick, 2005).

In England, EIA was established in 1988 under the European Directive 85/337 (Glasson *et al.*, 1997). The implementation of this directive was important for Member States in the sense that they had to establish their own EIA systems in line with the principles of the European Directive, ensuring EIA regulations were in place across member states.

However, EIA systems do vary significantly from country to country, not only within the European Community but also everywhere in the world. The nature of

the system, for instance whether mandatory or discretionary, provision of guidance and secondary regulations, levels of public participation, implementation in practice, monitoring and enforcement, are all set out according to the legal and institutional frameworks of each country, and therefore can still vary greatly in practice (Glasson, Therivel and Chadwick, 2005).

In South America, according to Glasson, Therivel and Chadwick (2005), a large number of EIA regulations and guidelines were established in the early 1990s. However, EIA regulation in Brazil was first enacted in 1986 under the Resolution CONAMA 001/86 and in part EIA had already been carried out before 1986 for major infrastructure projects as a procedure required by the World Bank (Glasson and Salvador, 2000).

Turning attention to the definitions of EIA, it is possible to find a large number of definitions by reviewing the literature on the subject. According to the European Directive 85/337 (European Commission, 1985, n.p), EIA is an 'assessment of the environmental effects of those public and private projects which are likely to have significant effects on the environment'. In Brazil, in line with the principles of Resolution CONAMA 001/86 (CONAMA, 1986), EIA is seen an assessment of:

any change in the physical, chemical, and biological properties of the environment, caused by any kind of matter or energy from human activities that affect directly or indirectly: I) the health, security, and well-being of people; II) social and economic activities; III) biota; IV) aesthetic and sanitary conditions of the environment; and V) quality of environmental resources.

In line with the definitions above, EIA, as discussed in the theoretical background of this research (see chapter 2), is conceived as a proactive and preventive tool which provides decision-makers and the public in general with an analysis of the likely significant environmental effects of a major project with the purpose of reducing its impacts (Wood, 2008; Weston, 2004).

As EIA is a process, which is regularly integrated into statutory planning processes, it involves certain key steps which are shown in figure 5.1 (below):

**Fig. 5.1: The EIA process.**  
**Source:** Adapted from Sadler, 1996; Glasson, Therivel and Chadwick, 2005.

These are the main steps in the EIA process; ideally, they should be carried out in this order, while keeping in mind that this is a dynamic process in which feedback and interaction should be active elements. In addition, it is also important to consider that these steps may display weaknesses when carried out in practice. For instance, in England and Brazil, monitoring is considered a weak element of the EIA process (Glasson and Salvador, 2000) (see section 5.3 for weaknesses).

A brief description of the steps of the EIA process outlined in figure 5.1 (above) is provided in table 5.1 (below):

Table 5.1: Description of EIA steps.

<b>Screening:</b> defines whether a project needs EIA or not based on the significance of its impacts.
<b>Scoping:</b> identifies the key impacts and issues of a project that should be considered.
<b>Impact analysis:</b> identifies, predicts and evaluates the potential significance of risks, effects and consequences.
<b>Mitigation measures:</b> introduces measures to avoid, reduce, remedy or compensate the significant impacts.
<b>Reporting the findings in the EIS:</b> shows the EIA outcomes.
<b>EIS review:</b> involves an appraisal of the quality of the EIS and contributes to the decision-making.
<b>Decision-making:</b> process involving the consideration of the EIS by the relevant authorities in order to approve or not a proposal and to establish terms and conditions.
<b>Monitoring:</b> checks the outcomes of the development impacts after a decision has been made.
<b>Audit of predictions and mitigation measures:</b> compares actual outcomes with predicted outcomes.
<b>Public consultation and participation:</b> ensures public's views are taken into consideration in the decision-making process.

Source: Adapted from Sadler, 1996; Glasson, Therivel and Chadwick, 2005.

### 5.3 Legal framework for Environmental Impact Assessment (EIA)

As outlined in the previous section (5.2), EIA legislation in England was officially

established in 1988, implementing the European Directive 85/337, a key document that sets out rules for EIA in Member States (Glasson, Therivel and Chadwick, 2005; Wood, 2000; Glasson *et al.*, 1997). In Brazil, Federal Law 6.938 which sets out the National Policy for the Environment was established in 1981 (Federative Republic of Brazil, 1981). According to Kirchhoff *et al.* (2007, p. 303), this federal law is the Brazilian environmental legislation milestone as it created 'the legal framework to effectively consider the environment as part of the decision-making process'.

It could be argued that the National Policy for the Environment is of the same importance for Brazil as NEPA is for the USA in terms of placing environmental issues in the agenda of the federal decision-making process (see chapter 2, section 2.2 for NEPA). The National Policy for the Environment establishes the National System of the Environment (*Sistema Nacional do Meio Ambiente – SISNAMA*) and reorganises the National Council of the Environment (*Conselho Nacional do Meio Ambiente – CONAMA*) and the Brazilian Environment and Renewable Natural Resources Institute (*Instituto Brasileiro do Meio Ambiente e dos Recursos Renováveis – IBAMA*) (Valle, 2004).

CONAMA, IBAMA and the Ministry of the Environment (MMA) play a core environmental role at the federal level. CONAMA is the consultative and deliberative body of SISNAMA and its key roles include originating major environmental regulations, such as resolutions (directives and technical norms); providing recommendations (regarding the implementation of policies, public programmes and norms and their effect on the environment); putting forward propositions (any environmental issue that needs to be forwarded to the Federal Senate or the Chamber of Deputies); and making decisions (regarding fines and penalties imposed by IBAMA) in order to fulfil the objectives of the National Policy for the Environment (CONAMA, 2011).

IBAMA, which is an executive body of SISNAMA, among its other roles, coordinates actions regarding EIA, environmental licensing, environmental monitoring and auditing, enforcement, and environmental emergencies (IBAMA, 2011). Both institutional bodies (CONAMA and IBAMA) are under the Ministry of

the Environment, which is the highest environmental tier in Brazil, responsible for implementing and integrating the National Policy for the Environment across the country (Glasson and Salvador, 2000).

At the English national level, the Department for Communities and Local Government (DCLG) is currently responsible for producing regulations and guidance for EIA carried out under the Town and Country Planning regulations. At the regional level, EIA regulations may vary, as in the case of Scotland and Northern Ireland due to devolution of power and independent planning systems. At the local level, the local planning authorities are frequently the competent authorities under the EU legislation (Glasson and Salvador, 2000) and Glasson, Therivel and Chadwick (2005) highlight that approximately 70% of EIA is carried out under the Town and Country Planning Procedures; the rest may be undertaken under other regulations (e.g. the Highways (AEE) Regulations 1999 or the Environmental Impact Assessment (Land Drainage Improvement Works) Regulations).

Turning the attention to Brazil, at the state level there are the state secretariats of the environment (*Secretarias Estaduais de Meio Ambiente*), the state councils of the environment (*Conselhos Estaduais de Meio Ambiente*) and the state agencies for the environment (*Orgaos Estaduais de Meio Ambiente*) (Glasson and Salvador, 2000). At the municipal level there are the secretariats of the environment (*Secretarias de Meio Ambiente*). The state and municipal levels are both empowered to set out their own environmental legislation and guidelines, as long as these are in accordance with federal regulations. The attributes of the state and municipal environmental bodies are presented in figure 5.2 which is based on Glasson and Salvador (2000). In addition, figure 5.2 also illustrates the Brazilian environmental institutional framework presented above<sup>1</sup>.

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<sup>1</sup> It should be noted that the diagram summarizes only part of the legal framework which is relevant for this study. The official structures of the Ministry of the Environment as well as the state and municipal bodies of the environment are more comprehensive and detailed.

**Fig. 5.2: Partial environmental institutional framework of Brazil.**  
**Source: The author, 2011 based on Glasson and Salvador, 2000.**

In terms of EIA legislation, in 1986 CONAMA issued Resolution 001/86, the most important Brazilian EIA regulation, which establishes basic criteria and general guidelines for environmental impact assessment (CONAMA, 1986). According to Glasson and Salvador (2000) this resolution is of the same importance for Brazil as the EC Directive 85/337 is for England.

In general terms Resolution 001/86 sets out the types of projects subject to EIA processes, the role of environmental authorities in the process, the minimum steps to be carried out for the EIA as well as the EIA report (EIS). An examination of Resolution 001/86 reveals that in principle it covers the main aspects necessary for a good EIA process, principally consideration of alternatives for the project, definition of mitigation measures, provision for monitoring programme, and the possibility of public participation (Glasson and Salvador, 2000). A similar situation can be found in England where the 1999 Town and Country Planning (Environmental Impact Assessment) Regulations deal with provisions for screening, applications for planning permission, preparation, publicity and submission of Environmental Statements, along with a list of projects subject to EIA (The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999).

Another important resolution was issued by CONAMA in 1997, Resolution 237/97, which associates EIA to environmental licensing (CONAMA, 1997; Sanchez, 2006). Because of the strong link between EIA and environmental licensing in Brazil both are discussed in more detail in the following section after the presentation of table 5.2 which summarises the key EIA regulations and institutions in England and Brazil.



Table 5.2: EIA regulations and institutions in England and Brazil.

	English institutions	Brazilian institutions	English regulations	Brazilian regulations
Supranational	European Commission	NOT APPLICABLE	EC Directive 85/337 (EIA)	NOT APPLICABLE
National / Federal	DCLG	CONAMA (under MMA)	Town and Country (EIA) regulations 1999	Resolutions 001/86 (EIA) and 237/97 (Environmental Licensing)
Regional / State	NOT APPLICABLE	States (environmental body)	NOT APPLICABLE	Empowered to enact regulations in line with federal principles
Local / Municipal	LPAs	Municipalities (environmental body)	NOT APPLICABLE	Empowered to enact regulations in line with federal principles

Source: The author, 2011.

*The environmental licensing system and EIA in Brazil*

According to Article 3 of Resolution CONAMA 237/97, the granting of an environmental licence for activities considered potentially harmful to the environment will depend on EIA and respective EIA report (EIS) (CONAMA, 1997). In line with this, Glasson, Therivel and Chadwick (2005) state that EIA is a regular feature of project licensing systems.

Kirchhoff *et al.* (2007, p. 304-5) based on CONAMA (1997) state that environmental licensing ‘is an administrative procedure that allows the environmental agency to approve and license the site, installation, expansion, and operation of enterprises and activities that may use or impact upon the quality of the environment and/or natural resources’. In line with Resolution 237/97, there are three types of licences: advance licence (*Licenca Previa* – LP), installation licence (*Licenca de Instalacao* – LI) and operation licence (*Licenca de Operacao* – LO) (COMANA, 1997). These licences are issued according to project stage and follow a logical sequence.

Advance licence must be required firstly at the preliminary phase of project and it attests environmental viability and location of the project whilst it also determines mitigation measures to compensate negative impacts (CONAMA, 1997). An installation licence can only be required after an advance licence has

been issued (Sanchez, 2006). The issuing of the installation licence means the competent environmental authority will have: a) authorised the developer to build; b) agreed the content of environmental plans, programmes and projects and their respective timetable for implementation; c) verified that the conditions set out by the advance licence were complied with; d) established environmental control measures to ensure the building process will meet the environmental quality set out by laws or regulations; and e) established the conditions for the installation licence (mitigation measures) (TCU, 2007; CONAMA, 1997).

Finally an operation licence is the last to be issued and it authorises the development to begin its activities as long as the conditions established in the previous licences (advance and installation) have been met (CONAMA, 1997). Moreover, this licence also specifies the conditions for the development to operate, and their implementation is compulsory (otherwise the development may have the operation licence suspended or cancelled) (TCU, 2007). It should be stressed that the competent environmental authority is responsible for monitoring whether the developer is complying with the conditions and mitigation measures stipulated by each licence throughout the different stages of the project (TCU, 2007).

With regard to the competence of carrying out environmental licensing at the three levels of government, it should be noted that IBAMA, an executive body of SISNAMA (see section 5.4), is responsible for the environmental licensing of developments with significant environmental impacts at the federal level, which means impacts that overpass the boundaries either of the country or of one or more states (CONAMA, 1997). For developments that may cause regional environmental impacts (exceeding the boundaries of one or more municipalities) and for those of local environmental impacts, environmental licensing is carried out by the State Agencies for the Environment and the Municipal Secretariats of the Environment, respectively (CONAMA, 1997).

The list of activities subject to environmental licensing is a result of the extension of the list established by Resolution 001/86. The list set out in 1986

identifies 17 activities; the most recent list from 1997, under Resolution 237/97, is more comprehensive, presenting 23 classes of activities, each with a number of sub-classes. Despite this, urban development projects related to sport infrastructure are not specifically included, which can present problems for the competent environmental authority in determining whether environmental licensing and EIA are needed for sport related infrastructure projects. This situation differs from England where the projects for which EIA may be required are divided into two broad categories which correspond to the lists of projects set out in Annexes 1 and 2 of Directive 85/377 (Glasson, Therivel and Chadwick, 2005). By examining those comprehensive lists, it is possible to identify, among a variety of projects, the ones related to infrastructure developments such as urban development projects and sports stadiums, which are explicitly listed under Annex 2, part 10(b).

Although there is a close link between EIA and environmental licensing in Brazil, suggesting that both should be undertaken simultaneously, it is important to be clear that environmental licensing is mandatory for all projects identified in the list of activities subject to environmental licensing, whilst EIA is mandatory only for projects considered by the competent environmental authority as potentially harmful to the environment. For those which, according to the environmental authority, are considered to have no potential to cause significant impacts on the environment, the normal process of environmental licensing is undertaken.

Figures 5.3 and 5.4 present the steps of the environmental licensing and EIA processes in Brazil and England.

**Fig. 5.3: The steps of the environmental licensing and EIA processes in Brazil.**  
**Source: Glasson and Salvador, 2000.**

Figure 5.4 (below) presents the steps of the EIA process in England:

Fig. 5.4: The steps of the EIA process in England.

Source: Glasson and Salvador, 2000 based on Glasson, Therivel and Chadwick, 1999.

The following sections which have links with the legal framework for EIA in England and Brazil discussed here in the present section provide a comparison of issues related to: weaknesses in the scope of the EIA systems in England and Brazil, consultation and participation in EIA, and the importance of other impact assessment tools.

#### *Weaknesses identified in the scope of the EIA systems in England and Brazil*

When comparing the EIA regulations of countries such as England and Brazil, it is important to keep in mind the wide range of differences associated with them e.g. spatial, geographical, political, cultural, economic, and historical issues, to mention just a few. This context serves to influence and define the ways in which policies are made and implemented in practice. The same is true in terms of environmental policies and EIA regulations and procedures, each of which reflects the characteristics and contexts of the different legal and planning systems (see chapter 4 for the English and Brazilian planning systems).

Despite the differences between England and Brazil, both countries seem to have a competent legal basis for EIA (Glasson and Salvador, 2000), although in practice problems exist. For example, in the Brazilian system there are no secondary regulations and no good practice guidance exists, both of which are of great practical importance in England (Glasson and Salvador, 2000). While in England, EIA regulations are largely applied under the existing Town and Country Planning System, in Brazil specific legislation has been enacted. In addition Brazilian EIA regulations are closely linked to the environmental licensing system, while in England there is no similar procedure.

Both countries have weaknesses regarding monitoring and enforcement (Glasson and Salvador, 2000; Glasson, Therivel and Chadwick, 2005); this is a common limitation in the current EIA practice identified in several EIA systems across the globe (Wood, 2003). However, in Brazil, the key problems related to EIA procedures are linked to implementation, monitoring and enforcement. Although there is provision for monitoring procedures in the Brazilian EIA legislation, the implementation of such procedure is limited in practice as

implementation of EIA decisions and enforcement of EIA regulations are largely subject to political will, economic pressures, time constraints, limited resources and limited number of skilled and trained personnel (Glasson and Salvador, 2000).

Although the Town and Country Planning EIA Regulations have been in place in England for a period of over 20 years and there have been incremental improvements throughout that time with subsequent amendments, there are still some concerns in terms of EIA quality with regard both to regulations and to practice (Glasson, Therivel and Chadwick, 2005). These authors (Glasson, Therivel and Chadwick, 2005) supported by others (Wood, Glasson and Becker, 2006; Wood and Becker, 2005; Benson, 2003; Glasson and Salvador, 2000; Wood, 1999; Glasson *et al.*, 1997, Sadler, 1996) summarise this concern, highlighting that there are still gaps in issues such as scoping, consideration of alternatives, consultation and public participation, consideration of socio-economic and cumulative impacts, and monitoring and auditing.

#### *Consultation and participation in Environmental Impact Assessment (EIA)*

In terms of consultation and participation, in England there is the European Directive 2003/35/EC which aims to strengthen provisions for public participation in environmental assessment of Member States (Holder, 2004; Hartley and Wood, 2005). According to Hartley and Wood (2005), the European Directive 2003/35/EC addresses the principle of public participation of the *Aarhus Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters*, since the European Community signed the Convention in 1998. It could be argued that the planning reforms set out by the Planning and Compulsory Purchase Act 2004, discussed in chapter 4 (see sections 4.4 and 4.5), which establishes Statements of Community Involvement (SCIs) in response to the importance of placing stakeholder engagement at the core of the English planning process, are also in line with the principles for public participation in the European Directive 2003/35/EC and of the Aarhus Convention.

Turning the attention to Brazil, both resolutions CONAMA 001/86 and 237/97 on EIA and environmental licensing make provision for public consultation (CONAMA 1997; CONAMA 1986). Moreover, it is important to emphasise that the City Statute and the Master Plans, which are the key planning documents at federal and municipal levels, also require public participation in order to achieve a democratic management of cities as set out by the City Statute in 2001 (see chapter 4, section 4.4). As discussed previously in chapter 4 (section 4.4), the City Statute establishes EIA as one of the instruments of Brazilian urban policy and because of this the City Statute specifically requires public consultation for developments that have the potential to cause negative impacts on the natural and built environment (Federative Republic of Brazil, 2001), reinforcing the provisions made by resolutions 001/86 and 237/97 on public consultation. The discussion provided in chapter 2 on the philosophies underlying the planning systems and environmental assessment and how public participation is addressed by both in England and Brazil confirms the influence of the collaborative turn in planning theory and environmental assessment.

#### *Other impact assessment tools*

The neighbourhood impact assessment (*estudo de impacto de vizinhanca – EIV*) is used to assess local impacts on urban areas in Brazil, such as transport system overload, infrastructure saturation, microclimate changes, among others (Sanchez, 2006). The neighbourhood impact assessment along with EIA is one of the instruments of the urban policy in Brazil and according to Sanchez (2006) the City Statute provides for EIV with a content similar to that of an EIA. However, article 38 of the City Statute states that the conduct of an EIV is not a substitute for the conduct of an EIA when required by the pertinent environmental legislation (Federative Republic of Brazil, 2001).

Besides EIA and neighbourhood impact assessment, it is necessary to acknowledge the importance of other impact assessment tools such socio-economic impact assessment and health impact assessment. According to the World Health Organisation (2011, n.p.), health impact assessment (HIA) 'is a means of assessing the health impacts of policies, plans and projects in diverse



economic sectors using quantitative, qualitative and participatory techniques'. Socio-economic impact assessment 'can be defined as the process of assessing or estimating, in advance, the social consequences that are likely to follow from specific policy actions or project development, particularly in the context of appropriate national, state or provincial environmental policy legislation' (Burdge and Vanclay, 1995, p. 32 cited in Vanclay, 2003, p. 1). Both tools are designed with the purpose of minimizing risks and maximising gains to local communities. Apart from these tools, it is possible to find several others in the impact assessment literature such as SEA, climate impact assessment, risk assessment, noise impact assessment, etc (Glasson, Therivel and Chadwick, 2005).

## **5.4 Conclusions**

This chapter has presented and compared the systems of environmental impact assessment in England and Brazil. In order to provide the comparison between the two EIA systems, this chapter has examined issues related to: a) origins, definitions and the process; b) legal framework; c) weaknesses; d) consultation and participation; and e) other impact assessment tools. By comparing both systems in those two countries, it is possible to identify their weaknesses and strengths and learn from them. With respect to EIA, England and Brazil have a competent system in terms of regulatory framework which is closely linked to the requirements set out by the key planning documents of both countries. However, there is still room for improvements, particularly regarding implementation, enforcement and monitoring of EIA and environmental licensing regulations in Brazil. As a key difference between English and Brazilian EIA systems is the fact that in Brazil EIA is carried out under the environmental licensing system whilst in England EIA is implemented under the Town and Country Planning System. Despite this difference, it does not seem to compromise the legal basis of both systems. The environmental impact assessment systems examined and compared here are useful for subsequent chapters (chapters 6 to 8), which present and discuss the findings from the English and Brazilian case studies. The next chapter introduces the empirical dimension of this thesis by presenting a synthesis of the data collected from the

Brazilian case study: the Rio 2007 Pan American Games.

## **6 BRAZILIAN CASE STUDY – THE RIO 2007 PAN AMERICAN GAMES**

### **6.1 Introduction**

This chapter presents a synthesis of the data collected from the interviews conducted with key stakeholders involved with the Rio 2007 Pan American Games, the Brazilian case study. The themes discussed in this chapter are based on both the categories and sub-categories of the analytical framework (see chapter 2, section 2.4) and of the codes that emerged from the interviews (see chapter 3, section 3.3.3). The themes are as follows: a) environmental impact assessment: environmental licensing and EIA; use of other environmental assessment tools; environmental licensing, EIA and other procedures in the planning process of major sports events and related infrastructure; implementation and enforcement of environmental licensing and EIA regulations and decisions; b) decision-making process: relationship between federal, state and municipal levels of government; weight of environmental issues; environmental licensing, EIA and other procedures in the decision-making process of major sports events and related infrastructure; public consultation; Rio 2007 as a preparation for hosting the Olympic Games; concentration of Rio 2007 in *Barra da Tijuca*; legacy of the Games. The themes and related findings presented in this chapter are further discussed against the theoretical framework in chapter 8, where a comparative analysis between the findings of the two research case studies is provided.

### **6.2 Environmental Impact Assessment**

#### **6.2.1 Environmental licensing and Environmental Impact Assessment (EIA)**

As discussed in chapter 5 (section 5.3), EIA is carried out under the environmental licensing system, which means EIA is one of the components of environmental licensing: *‘in Brazil EIA doesn’t exist outside of the environmental licensing system. It is a step of the licensing system, an instrument of licensing,*

*it can't exist alone'* (MSE, 00:09:25), observed a member of the Municipal Secretariat for the Environment.

Regarding environmental licensing, it should be noted that the state government of Rio de Janeiro has developed a policy of decentralization of the environmental licensing with the purpose of organizing and qualifying municipalities to undertake environmental licensing (INEA, 2010). This policy was reflected in the answers provided by interviewees concerning EIA and environmental licensing issues. Research participants acknowledged as a significant achievement the fact that municipalities are now also able to carry out environmental licensing for development projects. However, it should be mentioned that only projects of local impact can be licensed by municipalities; projects of regional impact are still licensed by the state of Rio de Janeiro via the state agency for the environment (which is called INEA, *Instituto Estadual do Ambiente*, in the case of Rio de Janeiro). The transition of the environmental licensing between state and municipalities is reasonably recent as it took place in 2007 (Municipal Secretariat for the Environment, 2010), which is the same year as the Pan American Games were held in Rio de Janeiro, so the venues and other projects in the scope of the Games were still licensed by the state level (INEA, 00:08:17).

The fact that the environmental licensing has been decentralized from the state to the municipal level represents a substantial improvement as *'the culture in Brazil is of an excessive centralization of everything'*, as described by a research participant, a member of the Municipal Secretariat for the Environment (MSE, 00:10:59). However, this situation seems to be changing, as added by the same interviewee: *'If you look in recent years there has been a decentralisation, the traffic system for example [...]'* (MSE, 00:10:59). Such a change, in terms of the decentralization of the environmental licensing system, seems to be in line with the current participatory agenda of the federal government (see chapter 4, section 4.3) as well as with the key planning documents (see chapter 4, section 4.4), which tend to prioritise the empowerment of municipalities across the country in relation to planning issues.

Although the environmental licensing has been decentralized in Rio de Janeiro, the same does not apply to EIA. In the case that a development project requires an EIA, the environmental licensing and consequently the EIA both are undertaken by the environmental agency at the state level (Municipal Secretariat for the Environment, 2010).

As discussed in chapter 5 (section 5.3), the Resolution CONAMA 237/97 at the federal level sets out the typologies of development projects subject to environmental licensing. However, this resolution also stipulates that the competent environmental authority will decide whether or not a project requires an EIA along with the environmental licensing (see chapter 5, section 5.3). It could be argued that the discretion in relation to EIA as well as the fact that development projects related to sport infrastructure are not specifically listed by Resolution 237/97 (see chapter 5, section 5.3) may have affected the conduct of environmental licensing and EIA in the context of the Rio 2007 Pan American Games.

Despite this, the interviews revealed that both environmental licensing and EIA were undertaken, but with some limitations which are discussed later in this chapter (section 6.2.3). Although environmental licensing and EIA were carried out in the scope of the Games, it should be noted that the issue of legislation highlighted above may have influenced the conduct of environmental licensing, as described by a research participant, a member of the Special Secretariat for the Rio 2007 Pan American Games (SERIO): *'the carioca legislation [legislation from Rio de Janeiro in line with the Resolution 237/97] sets out the typology of developments that need to undertake environmental licensing; however, the majority of the Pan American projects didn't have any environmental licensing because they didn't fit in the typologies'*<sup>2</sup> (SERIOa, 00:05:10).

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<sup>2</sup> Here it should be noted that subsequently a state decree signed in 2009 on the state environmental licensing system of Rio de Janeiro sets out that the 'implantation of public or private and recreational areas – parks, stadiums, swimming pools, competition tracks' are subject to environmental licensing (State of Rio de Janeiro, 2009). However, it is not clear whether the decree also includes sport related major infrastructure projects.

The interviews also allowed the collection of different and contradictory opinions regarding the conduct of environmental licensing and EIA for the Rio 2007 Pan American Games. Below are listed some examples:

- a) For some interviewees environmental licensing was carried out for all the development projects in the scope of the Games: *'all projects had environmental licensing, they went through for all environmental agencies, there were no privileges'* (SERIOb, 00:22:47); *'all environmental licences were issued as nothing can be done without a licence. Moreover, the city council was behind and building the venues, the Municipal Secretariat for the Environment was also watching it'* (CO-RIOa, 00:09:36).
- b) For some of the research participants both environmental licensing and EIA were undertaken, since *'everything required by law was done'* (CO-RIOa, 00:15:18).
- c) A few interviewees had doubts whether these procedures were carried out or not: *'I don't know if EIA was undertaken, I didn't see anything'* (Environmentalist a, 00:04:35).

The answers provided by research participants are divergent as revealed by the extracts above. However, according to the interview with a member of INEA (state environmental agency in charge of the environmental licensing and EIA), who personally participated in the environmental licensing process for the projects of the Games, it was explained that: *'we identified the developments [Deodoro, Autodromo, Engenhao, dredging of Rodrigo de Freitas Lagoon] that should undertake environmental licensing because there were some developments that didn't need it [...]. The only development that needed and carried out an EIA along with the environmental licensing was the Pan American Village'* (INEA, 00:01:19).

In order to provide a better understanding of how the environmental licensing and EIA were carried out in the context of the Games, according to the official

report for the Rio 2007 Pan American Games, the following new venues were built: a) City of Sports Complex (also known as Autodromo); b) Deodoro Sport Complex; c) Joao Havelange Stadium (also known as Engenhao); and d) the Pan American Village, and the following venues were significantly renovated (and there were others which also had some degree of renovation): a) Maracana Sport Complex; b) Rio Centro Convention Centre; and c) Lagoa Rowling Stadium (Official Report Rio 2007 Pan American Games, n.d). Regarding the new venues, by cross-checking the information provided by the official report against the information given by the research participant above (SERIOb, 00:22:47; CO-RIOa, 00:09:36; Environmentalist a, 00:04:35; INEA, 00:01:19), it is possible to conclude that environmental licensing was carried out for all the new venues (including the Pan American Village). However, the only development project required to undertake an EIA was the Pan American Village. Concerning the renovation of existing venues, the interviews revealed that the Maracana Sport Complex and the Lagoa Rowling Stadium had environmental licensing carried out (SEA, 00:08:26) whilst the Rio Centro Sport Complex did not undertake such a procedure (INEA, 00:03:49).

Table 6.1 below summarizes the conduct of environmental licensing and EIA for the venues listed by research participants in the context of the Rio 2007 Pan American Games:

Table 6.1: Conduct of environmental licensing and EIA for the new and significantly renovated venues of the Rio 2007 Pan American Games.

Cluster <sup>3</sup>	Venue/Village	Status	Environmental Licensing
Barra	City of Sports Complex (or Autodromo)	New	Yes
	Rio Centro Sport Complex	Renovated	No
	Pan American Village	New	Yes and EIA
Deodoro	Deodoro Sport Complex	New	Yes
Maracana	Joao Havelange Stadium (or Engenhao)	New	Yes and EIV <sup>4</sup>
	Maracana Sport Complex	Renovated	Yes
Sugar Loaf	Lagoa Rowling Stadium	Renovated	Yes

Source: The author, 2010 based on the Official Report Rio 2007 Pan American Games, n.d and the interviews conducted during the fieldwork in 2010.

Another important issue raised by research participants which may have also influenced the environmental licensing and EIA processes for the Rio 2007 was time constraints. The majority of the interviewees demonstrated concern regarding this issue and stated that time was a major limitation since the building process started significantly late, *'effectively in 2005'* (SEA, 00:16:20), as observed by a research participant, a member of the State Secretariat of the Environment (SEA). Time constraints must have been a major issue with a significant impact on the planning process, particularly considering that the Games were held in 2007. As a consequence of the lack of time, one interviewee, a member of the SERIO, highlighted that *'many issues of the environmental licensing were problematic for the Rio Pan American Games because the construction finished very late'* (SERIOc, 00:06:42).

In addition, a research participant, a member of the Federal Public Ministry, under the judiciary power, pointed out that: *'what I noticed is that the construction was undertaken at the last minute, too close to the event'* (FPM, 00:01:13). Following this context, it could be argued that the quality of the environmental licensing process may have been compromised by time

<sup>3</sup> The Rio 2007 Pan American Games took place in four clusters: Barra, Deodoro, Maracana and Sugar Loaf (Official Report Rio 2007 Pan American Games, n.d).

<sup>4</sup> For EIV see section 6.2.2.



constraints. As revealed by one interviewee, a member of FIA: *'the environmental licensing was undertaken but I don't know if it was based on concrete analysis, I can't tell that, although I think there was no time for that'* (FIA, 00:22:27). The issue of time constraints is further discussed in section 8.3.1.

### *Environmental Impact Assessment (EIA) for the Pan American Village*

Although the Pan American Village was the only development project in the context of the Games that was required to carry out an EIA along with the environmental licensing, the interviews suggested that research participants did not know exactly which projects required EIA as part of the environmental licensing. Interviewees' answers oscillated from EIA being carried out for projects (as stated above in section 6.2.1, letter 'b') to no conduct of EIA at all, as observed by a research participant, a member of the Municipal Secretariat for the Environment: *'none of them [projects] carried out an EIA because they didn't fit. In Rio de Janeiro only developments over 50 ha need EIA'* (MSE, 00:06:10). The interviews also pointed out that the area or scale of the Pan American Village generated ambiguity in relation to the information provided by interviewees on the conduct of EIA for the Village. As explained by another interviewee, a member of the SERIO: *'the Pan American Village undertook an EIA, although it was not necessary, because the size of the area didn't require it as set out by the State Environmental Legislation'* (SERIOd, 00:08:28).

According to the Rio Janeiro state law 1356/88 on EIA, urban development projects whose area exceeds 50 ha are required to undertake EIA along with environmental licensing (State of Rio de Janeiro, 1988). Examining the EIS of the Pan American Village, it was stated in that report that the development was not obligated to carry out an EIA as its area was under 50 ha (RIMA, 2003). However, the developers still undertook an EIA in order to demonstrate the environmental and socio-economic viability of the project (RIMA, 2003).

Despite such justification, an interview with a member of INEA, who participated in the environmental licensing and EIA processes of the Village, stated that EIA

was required because the development would take place in a fragile area with native vegetation (INEA, 00:07:08). In addition, this interviewee revealed that there was an attempt by the developers not to carry out EIA, using the legislation as an excuse, in this case the area threshold. However, the state law 1356/88 on EIA also stipulates that urban development projects whose area is under 50 ha are still required to conduct EIA if located near protected areas (State of Rio de Janeiro, 1988). In the case of the Pan American Village, its area was under 50 ha, however its location is near the *Lagoas of Jacarepagua*, which are a protected area, so *'the State Environmental Agency understood that it was necessary to undertake EIA'* (INEA, 00:07:08).

Another matter that emerged from the interviews regarding the conduct of EIA for the Pan American Village, besides the area issue, was the fear of legal challenge. As the development was a partnership between the federal government and private sector, *'the developers were afraid of challenge, so they undertook EIA to avoid any questions'*, highlighted one interviewee a member of the Municipal Secretariat for the Environment (MSE, 00:16:16). Here it should be noted that the Pan American Village represented the only public-private partnership in the context of the Games, as the venues were funded by federal, state and municipal levels of government.

Fig. 6.1: The Pan American Village.  
Source: *Angular Fotos* in Rio de Janeiro City Council, 2008.

*Did Environmental Impact Assessment (EIA) change the project of the Pan American Village?*

According to a research participant, a member of AGENCO (the company in charge of the Pan American Village development), the EIA had a positive impact on the design of the project since both EIA and design were considered side-by-side (AGENCO, 00:07:20). As outlined by this interviewee: *'SERVEC [the EIA consultancy] helped us a lot because they gave us important information to improve the project'* (AGENCO, 00:07:20). So apparently design and EIA were integrated from the beginning of the process, as explained by one interviewee, a member of AGENCO: *'we considered in the design stage everything we are talking about here: water reuse, natural lightning [...] so the project was born with this environmental characteristic'* (AGENCO, 00:10:13). As examples of some of the changes in the project of the Pan American Village due to EIA results, one interviewee, a member of INEA, pointed out that there were some in relation to sewage treatment (installation of a sewage plant), reforestation of some areas near rivers, and rearrangement of roads and footpaths, among others (INEA, 00:04:39).

It should be noted that research participants acknowledged the project of the Village as a successful example of environmental performance in terms of energy efficiency. The project set out a different approach by incorporating energy efficiency concepts in its design ahead of those commonly used by the civil construction in Rio de Janeiro (SERIOa, 00:15:40). According to one interviewee, a member of AGENCO, everything was done in the scope of the Village with the purpose of reducing operational costs and improving the environmental efficiency of the development (AGENCO, 00:02:14). For a member of the EIA consultancy team, the Pan American Village of Rio de Janeiro should be considered a model from the environmental and socio-economic points of view, since *'it has been the best Village ever designed for a Pan American Games'* (SERVEC, 00:16:52).

### **6.2.2 Use of other environmental assessment tools**

In the context of the Rio 2007 Pan American Games, other procedures apart from the environmental licensing and EIA were undertaken. In terms of the use of other assessment tools, research participants explained that a socio-economic impact assessment was carried out as part of the EIA process and the results of this assessment were published in the EIA report for the Pan American Village. Although Resolution CONAMA 001/86 on EIA sets out the consideration of socio-economic issues in the EIA process (CONAMA, 1986), it should be noted that this resolution does not mention how this could be achieved in an effective manner. The analysis of the EIA report for the Pan American Village (RIMA, 2003) revealed that the issue of socio-economic impacts appears to be relevant since this issue was presented extensively throughout the report. However, the information provided seems to be descriptive rather than establishing connexions between those impacts and their concrete meaning for the population of Rio de Janeiro. Such a situation is in line with Meyers' view, for whom EIAs usually compile different types of effects without examining their meaning or importance and trade off values (Meyers, 1976 cited in Benson, 2005).

The analysis of the EIA report for the Pan American Village also showed that a brief health impact assessment was also carried out as part of the EIA process in order to assess a possible emergence of new cases of dengue fever (a common disease in Rio de Janeiro during summertime, transmitted by mosquito bites) because of the development. According to the EIA report, during the construction phase, special teams would spray the area to ensure concentrations of mosquitoes would not proliferate. Talks on the subject would also be provided to workers (RIMA, 2003). The EIA report also revealed that a brief noise study was undertaken in the area as well with the purpose of identifying sources of noise around the area of the development (RIMA, 2003).

Concerning the Neighbourhood Impact Study (EIV), according to one interviewee, a member of INEA, this assessment was carried out only for the Joao Havelange Stadium (see table 6.1) because of its impacts on the surrounding area in terms of noise, traffic, pedestrian circulation, among others (INEA, 00: 04:33). It is important to highlight that both the City Statute at the national level (see chapters 4 and 5, sections 4.4 and 5.3.) and the new Master Plan (see chapter 4, section 4.4) of the city of Rio de Janeiro, which has recently been approved in 2011, set out EIV as an instrument of urban policy with the purpose of assessing the positive and negative impacts caused by a development project in terms of noise, use of infrastructure, traffic as well as stipulating mitigation measures for the negative consequences (Rio de Janeiro City Council, 2011).

The interview with a member of the CO-RIO revealed that a report on the inventory of green house gas emissions in the Games was produced in 2008 (CO-RIOa, 00:57:20). In this report, the results were presented in order to identify and quantify the emissions of sport activities, media/press and the emissions of the Games as a whole (Report P1, 2008). The report also demonstrated how emissions were minimized by adopting cleaner technologies such as biodiesel (P1 Report, 2008). Some interviewees also referred to a study conducted by Ernst & Young Brazil on the impacts of the Games regarding the following aspects: sports; social impacts; urban infrastructure; business and economy (SERIOb, 00:24:18; CO-RIOb, 00:15:09).

The analysis of the report by Ernst & Young Brazil indicated that the environmental dimension was considered along with the issue of urban infrastructure and it covered sanitation, solid waste management, environmental education, carbon footprint, green building and water decontamination (Ernst & Young Brazil, n.d). In addition, the interview with a member of Ernst & Young Brazil confirmed that the Games' impacts on sports, infrastructure and on socio-economic issues were the focus of the study conducted by the consultancy. However, this research participant stated that analysis provided by the study was not based on a comparison between what was planned and what was delivered; instead it was based on the information available on the CO-RIO and SERIO (Ernst & Young Brazil, 00:00:05). Here it is important to note that as studies both on the green house gas emissions and on the impacts of the Games were undertaken after the Games had finished, they were not considered in the planning process of the Games, which is one of the core interest of this research along with decision-making and EIA.

### **6.2.3 Environmental licensing, Environmental Impact Assessment (EIA) and other procedures in the planning process of major sports events and associated infrastructure**

After examining the conduct of environmental licensing, EIA and other assessment tools in the context of the Games in the previous sections (6.2.1 and 6.2.2), the focus of the discussion here is on the stakeholders' perceptions regarding the importance of such procedures in the planning of major sports events and related infrastructure.

For the majority of research participants environmental licensing, EIA and other assessment tools are seen as positive procedures in the planning process of major sports events and associated infrastructure. As observed by one interviewee, a member of Ernst & Young Brazil: *'I think they are important because by using them you can anticipate situations that can bring problems to your project'* (Ernst & Young Brazil, 00:23:11).

However, as discussed previously in section 6.2.1, research participants also referred to a list of issues that may affect negatively the conduct of environmental licensing and environmental assessment procedures for major sports events and related infrastructure. Firstly, bureaucracy was identified by interviewees as a major issue when carrying out environmental licensing and EIA for any type of development projects (CO-RIOb, 00:09:42; Ernst & Young Brazil, 00:29:05; SERIOe, 00:47:20; FIA, 00:36:27). The interviewees also explained that bureaucracy has been rooted in the Brazilian public administration at the three levels of government (federal, state and municipal) which compromises the conduct and review of public processes such as environmental licensing and EIA (FIA, 00:36:27; SERIOe, 00:47:20). As described by one interviewee, a member of SERIO, *'it ends up that all analysis of technical processes in Brazil is incredibly difficult because of the bureaucracy [...]. So there is a fear because of the bureaucratic part, not because of carrying out EIA. Everybody gains with EIA, developers and population. But the bureaucracy is so huge that it scares everybody'* (SERIOe, 00:47:20). This situation regarding bureaucracy may be particularly aggravated by political and economic interests from the parties involved in the licensing process, which may add extra pressure to the environmental licensing and EIA (see chapter 5, section 5.3). As claimed by a research participant: *'the instrument of EIA is great, but it was perverted by typically Brazilian vices: economic and political interests that compromise the importance of this instrument'* (Environmentalist b, 00:16:40).

Secondly, the interviews indicated that there appears to be a lack of engagement and tension that exists between the environmental bodies of the government (federal, state and municipal) and developers applying for environmental licensing and EIA through such bodies (Ernst & Young Brazil, 00:29:05; FIA, 00:36:27). One interviewee, a member of FIA, described the environmental licensing process as tense, since *'between the submission of application and granting of the environmental license everything can happen, inclusive nothing. This is the problem; this is an unpredictable, long and not transparent enough process [...]'* (FIA, 00:36:27). Another interviewee, a member of SERIO, suggested early engagement in order to avoid or minimize

the tension between environmental bodies and proponents: *'it is very important to engage the environmental bodies from the beginning of the planning of the event, because later, as they didn't take part earlier, they become too legalistic'* (SERIOc, 00:46:19).

Integration could also be an effective solution for the problem of a lack of engagement and the tense relationship between environmental bodies of the government and developers applying for environmental licensing in Brazil. Maybe by integrating environmental bodies and developers from the beginning of the project, it would be possible to minimize the tension and improve this relationship. As suggested by a research participant, a member of Ernst & Young Brazil, *'environmental bodies should be more integrated with the executive areas of the project, they should participate from the first discussion about the idea of the project'* (Ernst & Young Brazil, 00:29:05). According to this interviewee, what usually happens in Brazil is that firstly the decisions are made regarding a project and only afterwards are environmental issues considered. If EIA needs to be undertaken, according to this perspective, it is likely to be seen as a post-hoc rationalisation for something that has been already decided (see chapter 7, section 7.2.2). *'So when the environmental body is contacted, it seems to be a tense moment, because the project has started already and they have to follow their procedure'* (Ernst & Young Brazil, 00:29:05).

Thirdly, research participants also described a situation which has become a problem in Brazil recently, the negative influence of opportunist NGOs in the EIA process; particularly in the public consultation hearings (Lagoa Viva, 00:28:53; CCBT, 00:00:53; Environmentalist b, 00:26:06) (see section 6.3.4 for public consultation). Opportunist NGOs or the 'eco-annoying' (as they are called in Brazil) are led by their private interests and use attendance at public consultation hearings for the purpose of influencing and complicating the EIA process based on theirs or someone else's motivations rather than on what is better for the environment and community. Public consultation hearings are usually the arena where opportunist NGOs defend, under payment or exchange of favours, the interests of the stakeholders they represent. In general the consequences are negative for the development, environment and population.



As described one interviewee, a member of AGENCO: *'I think EIA is very important [...]. However opportunist NGOs in a public consultation can delay a project just because of bribe. This is a problem that we are facing at all levels, but that's something we have to live with'* (AGENCO, 00:25:48).

Finally, research participants raised the issue of environmental licensing and EIA being considered as obstacles and legal impositions. One interviewee, a member of the CO-RIO, explained that those procedures are carried out basically because it is a legal requirement (CO-RIOa, 00:53:08). According to this interviewee, environmental assessment procedures are undertaken *'more by requirement than by environmental awareness. Awareness comes later'* (CO-RIOa, 00:53:08). In addition, another research participant, a member of the Municipal Secretariat for the Environment, stated that: *'here it is quite common that environmental licensing comes later, it comes to comply with a step of the legislation. Developments go ahead as much as they can and the environmental licensing comes more as a thing, more as a bureaucracy [...]'* (MSE, 00:23:51).

To summarize, the key problems identified by research participants as capable of negatively influencing the conduct of environmental licensing and EIA in the context of development projects in Brazil are listed as follows: a) bureaucracy and political and economic interests; b) lack of engagement and tension between environmental bodies of the government and proponents applying for environmental licensing and EIA; c) opportunist NGOs; and d) perception of environmental licensing and environment assessment procedures as obstacles and legal requirement.

#### **6.2.4 Implementation and enforcement of environmental licensing and Environmental Impact Assessment (EIA) regulations and decisions**

The interviews revealed that environmental licensing and EIA were undertaken according to pertinent legislation at federal and state levels for the Pan American Village. Although environmental licensing and EIA regulations were implemented in the context of the Games for some projects (see section 6.2.1),

it should be noted that the fact that sport related infrastructure, such as sport stadiums, are not listed as developments subject to environmental licensing by resolution CONAMA 237/97, at the federal level, as discussed in section 6.2.1, may have limited the implementation of such procedures.

However, it could be argued that it was not only the regulation on environmental licensing that may have limited the implementation of environmental licensing and EIA in the context of the Games. A research finding presented in section 6.3.4 concerning the enactment of a special decree may have also affected the implementation of such procedures. According to this decree, legal steps of the environmental licensing were not fully followed, which means some licences were issued directly as an Installation Licence instead of an Advanced Licence (see chapter 5, section 5.3), as described in section 6.3.4. Therefore, the enactment of the special decree may have had a negative impact on the implementation process, as the environmental licensing was not implemented properly as set out by the pertinent legislation for all the projects that undertook such procedure.

Moving from the implementation at the regulatory level to the implementation of EIA results, the interviews revealed that the mitigation measures, monitoring plans (noise, air emissions, sanitation, etc) and environmental management programs (environmental education, waste and recycling, etc) established by the EIA of the Pan American Village were completed (SERVEC, 00:00:25; INEA, 00:07:59; CO-RIOb, 00:25:08).

As discussed in chapter 5 (section 5.3), the key problems related to environmental licensing and EIA procedures in Brazil are linked to implementation, monitoring and enforcement. In terms of implementation and enforcement processes, the enforcement of environmental licensing and environmental assessment procedures is perceived as a sensitive issue by research participants. There are many factors influencing directly this process as pointed out by research participants.

The enforcement of EIA decisions in the case of the Pan American Village and mitigation measures set out by the environmental licences of other projects were carried out by the state agency for the environment by cross-checking periodic reports and site visits (INEA, 00:07:59; SERIOa, 00:05:12). As explained by one interviewee a member of INEA: *'from the reports eventually we cross-checked [with a visit] to make sure everything was ok'* (INEA, 00:07:59). The analysis of the interviews suggested that the enforcement of environmental licensing and EIA in the context of the Games was reasonable compared to Brazilian standards. One possible reason for this may have been the fact the delivery bodies were the government itself (federal, state and municipal levels).

Therefore there were members of the State and Municipal Secretariats for the Environment dealing with environmental issues as well as enforcement of environmental licensing and environmental assessment regulations, which provided an extra support to the enforcement process in the Games. As observed by a research participant, a member of SERIO, *'I went to the sites many times, I oversaw many constructions to enforce them'* (SERIOa, 00:05:37). Although this interviewee had enforced many construction projects himself, he is aware of the limitations of the enforcement not only in the scope of the Games but also in the scope of the country (SERIOa, 00:05:37). Although the Rio 2007 Pan American Games may have had a privileged situation because of the presence of government environmental agents in its organising structure, the enforcement process may not have been completely effective. *'It is not a wonderful enforcement, in a city this big, with a limited number of environmental agents, enforcement is very difficult, sometimes that's the last thing you do, at the end of a construction someone goes there to check if everything is ok'* (SERIOa, 00:05:37).

A problem identified by research participants that limits and compromises the enforcement of environmental licensing and EIA in the country is the lack of personnel in the state and municipal environment bodies. This situation was noted in the extract above and also in other interviews (FPM, 00:18:19; SERIOd, 00:55:14). According to one interviewee, a member of SERIO, *'if you look at a*

*country like Brazil, big, and the personnel of INEA, IBAMA or the Municipal Secretariat for the Environment, it is really difficult to enforce'* (SERIOD, 00:55:14).

Apart from this problem, interviewees also indicated another issue that undermines the enforcement in Brazil: corruption. According to a research participant, a member of the Federal Public Ministry, *'there is the issue of corruption that we can't deny, pretend it doesn't exist, because it does'* (FMP, 00:18:19). In addition, another interviewee, an environmentalist with professional experience at the state and municipal governments in Rio de Janeiro, revealed that *'the corruption vice is not generalised but it is deep-rooted, the certainty of impunity, the money that doesn't come to buy equipment, pay good salaries to environmental agents. So, all these conditions undermine the enforcement'* (Environmentalist b, 00:19:20).

Therefore, the lack of personnel, underpaid existing personnel, lack of equipment and corruption are the key problems identified by research participants, which undermine the enforcement of environmental licensing and EIA in the country. Besides these issues, another element that makes the enforcement very difficult in Brazil is related to *'years and years of clientelism involving the public power [government]'* (Environmentalist b, 00:18:00). These may possibly be the reasons why a research participant stated that *'after a development receives the Operation Licence, forget it, because there is no enforcement to make sure they are complying with the requirements of the licence [...]. When eventually there is some enforcement, it is so light that it doesn't impose respect'* (Environmentalist b, 17:02; 27:28).

In terms of success factors, it is important to highlight the positive contribution of the Federal Public Ministry (see chapter 3, section 3.3.2.1) and the Environmental Crimes Law<sup>5</sup> in the enforcement process of the environmental licensing and EIA in Brazil. According to research participants, the Public Ministry plays an active role by verifying denunciations reported by the public;

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<sup>5</sup> Federal Law 9605/98 on penalties and administrative sanctions to harmful activities on the environment (Federative Republic of Brazil, 1998).

suspending projects; enforcing the environmental licensing and EIA (MSE, 00:29:30; Environmentalist b, 00:28:38). However, a research participant clarified that the role of the Public Ministry should not be confused with the role of agencies for the environment: *'the Public Ministry is elevated to the level of an environmental body which it is not [...] because the Public Ministry is not an environmental body. Who has to enforce is the environmental body responsible for enforcement'* (FPM, 00:22:00).

Another important contribution is provided by the Environmental Crimes Law, which was set out in 1998. As observed by one interviewee, *'the environmental licensing system started becoming more efficient with the establishment of the Environmental Crimes Law [...]'* (SERVEC, 00:24:28). According to this research participant, this law regulated the issue of environmental damage, stipulating sanctions and penalties that help the enforcement process of the environmental licensing (SERVEC, 00:24:28). Another interviewee, a member of the Federal Public Ministry, expressed the view that the Environmental Crime Law is an important instrument in order to combat environmental degradation (FPM, 00:39:46). However, in this interviewee's opinion, it presents some limitations: *'the Law is great, but penalties are very small and expire quickly. So by the time the Judiciary needs to judge a crime, it has already expired'* (FPM, 00:39:46). Even though both the Public Ministry and the Environmental Crimes Law are not entitled to enforce in the first place, as this role should be played by the agencies for the environment, their collaboration in the enforcement process of the environmental licensing and EIA in Brazil is very significant.

Another topic which emerged from the interviews in Brazil is concerned with the issue of 'strong environmental legislation *versus* weak implementation'. As stated by research participants, the Brazilian environmental legislation is comprehensive and advanced (Lagoa Viva, 00:32:20; SERIOd, 00:54:30; INEA, 00:19:44; FPM, 00:20:45; SEA, 01:46:42). However, the problem seems to reside when it is translated into practice. So there appears to be a gap between the legislation and its implementation. As claimed by one interviewee, a member of the Federal Public Ministry, *'we have a great environmental legislation, but the implementation gets lost because nobody wants to spend*

*money and there is also the time issue, [...] because an EIA takes time'* (FPM, 00:14:29). In addition, another interviewee added: *'it is wonderful what is on paper, but there are many interests playing in this game'* (Lagoa Viva, 00:32:20). To another interviewee: *'the Brazilian environmental legislation is said to be one of the best of the planet, but the way things are organised, you are not able to implement it'* (FIA, 00:36:27).

### **6.3 Decision-making Process**

#### **6.3.1 Relationship between federal, state and municipal levels of government**

The relationship established amongst federal, state and municipal levels of government during the planning process of the Rio 2007 Pan American Games was not a topic that was originally part of the present research (see chapter 3, section 3.3.3). It was during the conduct of the fieldwork in Brazil that this issue emerged from the interviews. It was felt from the interviews that this issue was relevant to research participants as well as the consequences of this relationship for the planning process of the Games as a whole.

Interviewees described how there was a strong party-political divergence between federal, state and municipal levels. As the government at these three levels was not aligned in terms of political parties, it seems federal, state and municipal governments were not communicating and supporting each other during the planning process of the Games (SERIOb, 00:11:24; SERIOe, 00:24:49; SERIOd, 00:38:14; SERIOc, 00:14:11; FIA, 00:08:15). As observed by a research participant, a member of SERIO: *'there was an arm wrestle because there were three entities of government plus a fourth entity, the COB [the Brazilian Olympic Committee], defending their interests and needs. There was also the issue of government A against B; party A against B* (SERIOd, 00:38:14).

Moreover, research participants also stated that the Rio 2007 Pan American Games were for a long time a project supported only by the municipal level

(SERIOb, 00:11:24; SERIOe, 00:20:10; SERIOc, 00:14:11), reinforcing the perception of other stakeholders and other levels of government that the Games were a project of the municipality of Rio de Janeiro. One interviewee, a member of SERIO, explained that the mayor of Rio de Janeiro invested in the construction of the venues as much as the municipal budget allowed (SERIOe, 00:20:10). However, the resources were not sufficient also to cover infrastructure developments as the municipality was already funding the construction of sport facilities (SERIOe, 00:20:10). The municipal investment in venues generated a large amount of criticism among public opinion and it was pointed out as a sensitive issue by interviewees, as observed by a research participant: *'so the money that should have been used for the city for critical areas was used to build sport facilities'* (Environmentalist a, 00:35:34).

At this point of the planning process, state and federal governments needed to provide financial aid in order for the municipality to finish the construction of the venues. As federal and state governments were not engaged from the beginning of the planning process of the Games, they did not embrace the Games, as there was a tension that they *'had been called basically to pay the bills'* (SERIOe, 00:20:10). It was only with the general elections in the country for president and governor in October 2006 that there was a change of government at the state level in Rio de Janeiro that provided a political alignment between federal and state governments (SERIOb, 00:17:29). This political alignment represented the opportunity for dialogue amongst governments, which resulted in the commitment of the federal government to invest in the Games (SERIOb, 00:17:29).

However, this articulation between governments happened only in January 2007 (when the new elected body took place), near the opening of the Games in July 2007, consequently *'70% of all venues, actions, projects, contracts for the Pan American Games were done within the six months before the start of the event'* (FIA, 00:12:14), as revealed by a research participant, a member of FIA. The extract above is confirmed by a review of documents produced at state level, which indicated that the state governor signed a series of state decrees between March and June 2007 allowing additional budget to be used for the

State Secretariat of Tourism, Sport and Leisure (SETE) to fund constructions and other services necessary for the Rio 2007 Pan American Games (State of Rio de Janeiro, 2007).

As the political alignment between governments released funding from the federal level to the state and municipal levels significantly late in the planning process of the Games, there was a rush to finish the construction on time and only those necessary for the Games were prioritised which were the sport facilities (SERIOe, 00:23:51). There was no time left for making the improvements in terms of infrastructure or urban regeneration for the city, as described by a research participant, a member of SERIO (SERIOe, 00:23:51) (see section 6.3.7). This research participant also stated that *'there was no planning going on since 2002 with the participation of the three levels of government'* (SERIOe, 00:23:51). The lack of engagement between governments and its consequences for the Rio 2007 Games were regarded with regret by research participants, as observed by a member of SERIO: *'if the alignment that exists today between federal, state and municipal governments had existed since the beginning of the planning process of the Pan American Games, we would have done another Pan American Games, with an extension bigger than it was done. That's a pity that we had only in the penultimate year the involvement of all entities'* (SERIOd, 00:38:14).

### **6.3.2 Weight of environmental issues**

The interviews revealed that for the majority of research participants the weight of environmental issues in the decision-making process of the Games was low (SERIOa, 00:21:50; CO-RIOa 00:48:20; SERIOc 00:32:22; SERVEC, 00:01:48; Ernst & Young Brazil, 00:23:00; FPM, 00:16:29). A research participant, a member of SERIO, explained that environmental issues were initially a discourse that was incorporated into construction practices; however, this was not decisive in the process (SERIOa, 00:23:43). In addition, this interviewee observed that as there were planning conditions set out by the environmental licences, the concern was related to how the delivery bodies would comply with those restrictions (SERIOa, 00:23:43). In this case, the environmental



dimension appears not to have been seen *a priori* as a component integrated in the planning process, capable of contributing positively in the decision-making; instead it was seen as something whose impacts need to be mitigated.

Following this perspective, one interviewee, a member of the Federal Public Ministry, observed that in general terms *'the environmental component has no weight. It is put there so we find a way to overcome it, let's sort it out as quickly as possible and spend as little money as possible. Unfortunately. And this is what has to change'* (FPM, 00:16:29). In addition, a research participant, a member of Ernst & Young Brazil, stated that *'being frank I think this is a bit secondary. I don't see environmental issues as an analysis that has a big weight in the decision-making about sites where developments take place. I think distance, logistic issues are more important and then, in a place, environmental issues are considered, but with a decision already made'* (Ernst & Young Brazil, 00:18:30).

Another research participant, a member of SERIO, explained that there was a discourse in terms of environmental improvements that would be fostered by the Games (SERIOe, 00:33:21) (see section 6.3.7). However, in this interviewee's view, the lack of planning due to divergences between federal, state and municipal governments (discussed previously in section 6.3.1) affected the time the delivery bodies had to deliver the Games (SERIOe, 00:33:21). So the delivery bodies were struggling against deadlines and also seeking funding from the federal and state governments to finish the venues on time, as discussed in section 6.3.1; consequently urban regeneration and environmental improvements could no longer be considered as a priority in the planning process (SERIOe, 00:33:21). To another research participant there was a concern in terms of re-use of rain water, rubbish recycling, etc (SERIOb, 00:17:29); however, crucial environmental issues of the city, such as the decontamination of rivers and lagoons of *Barra da Tijuca*<sup>6</sup>, were not improved because of the Games (SERIOe, 00:33:21). As observed by another interviewee, there is a concern with environmental issues especially at the

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<sup>6</sup> One of the four clusters where the Games took place (see section 6.2.1, table 6.1)

bidding stage, *'but in practice when you start, because of the urgency to deliver the Games, cost issues, you have a will to do, but then the deadlines come, so it gets complicated'* (SERIOc, 00:13:49).

The lack of time seems to have been a major limitation with negative consequences across different areas of the Games. Two interviewees described how the lack of time associated with the pressure to achieve deadlines affected negatively the conduct of environmental licensing and environmental assessment procedures in the context of Rio 2007. The extracts are as follows:

*'In my opinion, as deadlines were a fundamental thing for the Pan American Games [...], many environmental procedures that should have been followed, they must have been bypassed or accelerated, maybe the rigour has not been enforced strongly because of the deadlines and resources'* (SERIOc, 00:35:36).

*'Everything was done quickly ignoring best practice and doing things on the edge of what the law allows [...] the environmental licensing process in Brazil is complicated and in Rio it is particularly complicated. This is evolving [...] but at that time it was impossible to follow the whole procedure, there was no time and everything was done in an emergency environment'* (FIA, 00:20:03).

Research participants also called attention to the fact that the environment usually does not have the same weight as other areas, such as transport for instance, in the planning process of major sports events and in the public administration (RIO 2016, 00:31:11; MSE, 00:24:44). According to a research participant who is involved with the Rio 2016 organising committee, the environment compared to other areas in terms of organising structure does not have the same appeal as security and transport, for example. The human resources committed to this work indicates that the environment team usually has fewer members than other teams, as highlighted by this interviewee, a member of RIO 2016 organising committee (RIO 2016, 00:31:11). To illustrate this research participant's point of view, the environment commission of the

Special Secretariat for the Rio 2007 Pan American Games (SERIO) had one member only.

With regard to public administration in Brazil, a research participant, a member of the Municipal Secretariat for the Environment, described how environmental bodies do not have the same political weight as other bodies in the public administrative structure (MSE, 00:24:44). This interviewee explained that other municipal secretariats with more weight in his opinion, such as the Municipal Secretariat of Construction, usually make the decisions and then the Municipal Secretariat for the Environment has to undertake the environmental licensing without taking part in the decision-making process in the first place (MSE, 00:24:44). This interviewee also described the difficulties regarding the conduct of environmental licensing by environmental agencies as well as the influence of funding bodies in the environmental licensing process: *'I have been working with the environment in the public sphere for quite a long time and some time ago it was worse because it was possible to build with no environmental licence even though there was legislation for that. Today as funding agencies don't give money easily, people come to us to get the licence, not because the federal, state or municipal governments think it is something important, but simply because they won't get the advantages of the funding'* (MSE, 00:24:44).

Considering that environmental issues had a low weight in the decision-making process of the Games, as stated by the large majority of interviewees, research participants were asked about the factors that, in their opinion, had a high weight in this process. In response to the question, interviewees indicated financial resources followed by deadlines and political issues as the issues that had more weight in the scope of the decision-making for the Games (SERIOa, 00:24:35; CO-RIOa, 00:49:05; CO-RIOb, 00:42:25; SERIOc, 00:33:15, SERIOe, 00:43:40).

Despite the low weight of environmental issues in the context of the Rio 2007 Pan American Games, most research participants stated that this situation will change for the Rio 2016 Olympic Games. The interviews suggested that environmental issues and sustainability will be at the core of the planning

process, in line with London 2012. As observed by one interviewee, a member of the CO-RIO: *'don't you have any doubts that this [environmental issues and sustainability] was not priority for the Pan American Games, but now for the Olympics it is'* (CO-RIOa, 00:48:20).

Table 6.2 below summarizes, with some examples of quotations, the weight given by delivery bodies and other stakeholders to environmental considerations in the decision-making process of the Rio 2007 Pan American Games:

Table 6.2: Weight given by research participants to environmental issues in the decision-making process of the Rio 2007 Pan American Games.

Delivery Body/Institution	Weight	Summary
SERIO	Low	<i>'The environment had some weight in avoiding a couple of things, in changing others, but throughout the process it must have had 25%'</i> (SERIOa, 00:21:50).
CO-RIO	Low	<i>'It was not something fundamental in the decision-making'</i> (CO-RIOa, 00:48:20).
SERIO	Low	<i>'I think it was low'</i> (SERIOe, 00:42:38).
SERIO	Low	<i>'I would say it [environmental issues] is with 70%, 80% in people's mind as an important factor, but in the decision-making process, when you have to make decisions, I would say it is with 20%'</i> (SERIOc, 00:32:22).
Environmentalism	Low	<i>'What I saw was an absolute and general disinterest for environmental issues in the Pan American Games'</i> (Environmentalism a, 00:00:52).
EIA consultancy	Low	<i>'I think it was very weak'</i> (SERVEC, 00:01:48).
Ernst & Young Brazil	Low	<i>'Speaking about the status quo today, I think environmental issues are still treated as something secondary in the decision-making process'</i> (Ernst & Young Brazil, 00:23:00).
Federal Public Ministry	Low	<i>'The environmental component has no weight. It is put there so we find a way to overcome it, let's sort it out as quickly as possible and spending as few money as possible. Unfortunately. And this is what has to change'</i> (FPM, 00:16:29).

Source: The author, 2010.

### 6.3.3 Environmental licensing, Environmental Impact Assessment (EIA) and other procedures in the decision-making process of major sports events and related infrastructure

The weight of environmental issues was discussed in the last section (6.3.2) and attention is now turned to the influence perceived by interviewees of environmental licensing and environmental assessment procedures in the decision-making process of the Rio 2007 Pan American Games. Although

research participants stated that the weight of environmental issues was low in the decision-making process of the Games, they still believe that environmental licensing and EIA are important procedures that help to inform the decision-making in the context of major sports events and associated infrastructure.

One interviewee, who is an environmentalist, observed that because of these procedures the public has the opportunity to express their opinions concerning the project during the public consultation exercise carried out as part of the EIA process, which could influence the decision-making process (Environmentalist b, 00:28:17). A research participant, a member of the EIA consultancy that carried out the EIA for the Pan American Village, explained that environmental licensing and EIA help in demonstrating that environmental issues are holistic and that there are a set of issues that should be taken into consideration when making decisions (e.g. the built environment, local communities, education, jobs, health) (SERVEC, 00:34:32). Another research participant, a member of the State Secretariat of the Environment, observed that those procedures helped in improving projects to some extent in the context of the Games; however the environmental licensing and EIA did not influence the decision-making process much because there was a shortage of time (SEA, 01:25:22).

The extract below produced from an interview with a member of SERIO emphasizes the need for stakeholders to embrace environmental assessment procedures as decision-making and planning tools: *'I have been advocating for a long time that I understand EIA as one of the best planning tools [...]. I think EIA is a fundamental planning exercise and not only an instrument of environmental licensing. In my view it is a positive instrument and it has to be explored. The tendency is that sometimes developers understand that the fact they have to carry out an EIA means it will be costly and time-consuming and this has to get out of their and governments' minds [...]. Don't look at EIA as a stone in your shoe, a tortuous way, a problem, but as a tremendous exercise that can give credibility to the project, security and economy in procedures, because at the end you are going to have a better project [...]'* (SERIOa, 00:31:49).

#### 6.3.4 Public consultation

As discussed in chapters 4 and 5 (sections 4.4 and 5.3), the City Statute, the Master Plan and resolutions CONAMA 001/86 and 237/97 make provision for public consultation. However, the interviews revealed that in the state of Rio de Janeiro public consultation is likely to be undertaken for development projects subject to environmental licensing followed by EIA (MSE, 00:22:11; INEA, 00:17:33). The other projects which are not subject to EIA tend not to carry out public consultation.

In the Brazilian context, perhaps one of the most outstanding problems in terms of public consultation is concerned with the fact that it is not a mandatory requirement in the environmental licensing and EIA regulations at federal level. Although resolutions CONAMA 001/86 and 237/97 make provision for such a procedure, as mentioned above, these resolutions are still flexible regarding this issue by stating that public consultation should be carried out when necessary (CONAMA 1997;1986).

The fact that public consultation is not a compulsory step in the environmental licensing process of the state of Rio de Janeiro might also have been reflected in the opinion expressed by one interviewee, a member of a residents association in *Barra da Tijuca*, who observed that *'the public consultation doesn't have a weight, a significant meaning in the environmental licensing of developments'* (CCBT, 00:20:03). For another research participant, a member of the Municipal Secretariat for the Environment, *'[...] the regular environmental licensing [not followed by EIA] should also have public consultation to show the projects to interested people, to have public participation'* (MSE, 00:23:20).

According to the discussion provided in sections 6.2.1 and 6.2.4, EIA was only carried out for the Pan American Village in the scope of the Games, for this reason public consultation was undertaken for this project only. Research participants outlined that the consultation process was reasonably easy for the Village, as the area where the development took place was degraded and under threat of occupation by an illegal settlement. So according to one interviewee, a

member of AGENCO, the Pan American Village *'revitalised that area and avoided that it was taken over by slums'* (AGENCO, 00:17:23). Another interviewee, a member of a residents association (CCBT) in *Barra da Tijuca*, where the Village is located, observed that there was a strong media action plan regarding the benefits that the Games would bring to Rio de Janeiro, so this also contributed to minimize any action against the development during the public consultation hearing (CCBT, 00:29:31). The only issue regarded by research participants as controversial was the scale of the buildings as the urban legislation in the city of Rio de Janeiro allows the construction of three stores buildings in the area where the Village was built and the project was to build 12 stores buildings (INEA, 00:15:48; CCBT, 00:07:15; SERVEC, 00:46:07). So according to interviewees the legislation had to be changed to accommodate the new scale of the buildings and associated infrastructure (transport, sanitation services, footpaths, medical centre, bus stops, supermarkets, etc) had to be provided as the area where the Village is located was not well linked to other areas of the city (CCBT, 00:07:15; SEA, 00:35:48).

According to the research participants, opinions expressed during the public consultation hearing for the Village were taken into consideration (SERVEC, 00:46:07; SEA, 00:34:38; INEA, 00:25:55). One interviewee explained that some ideas in terms of infrastructure, such as new footpaths, were suggested during the public consultation exercise and were incorporated by the development (SERVEC, 00:46:07), however, another research participant stated that the footpaths, which were suggested in the public hearing, were only built recently after several people were injured crossing the streets (CCBT, 00:07:15). Regarding the importance of public consultation for the environmental licensing process, one interviewee, a member of INEA, noted: *'we know that the most democratic instrument that exists today is the public consultation of the environmental licensing process. We use it [public consultation] to improve our comments on projects and as planning conditions of the environmental licence* (INEA, 00:25:55).

It should be noted that although the consultation process for the Pan American Village seems not to have had many complications, it does not mean opinions

are always taken into consideration in Brazil. As stated by a research participant, a leader of a residents association who participated in the public consultation hearing for the Village, the suggestions discussed in a public consultation do not always change projects (CCBT, 00:11:42). In addition this interviewee observed that what usually prevails in the decision-making is the interest of developers and politicians (CCBT, 00:02:54, 00:11:42 and 00:13:28). On the other hand, a research participant, a member of the Federal Public Ministry, stated that the Public Ministry based on the transcription of a public consultation hearing can force developers to meet the commitments agreed in the public consultation hearing (FPM, 00:31:09).

### *Enactment of a special decree in the scope of the Games*

An important finding emerged from an interview with a member of the State Secretariat of the Environment that a special decree was signed by the President, the State Governor and the Municipal Mayor in order to declare as an emergency the construction needed for the Games (SEA, 00:30:49). According to the special decree, development projects were allowed not to follow the regular legal steps regarding environmental licensing, which means some of the steps required by law might have been bypassed (SEA, 00:32:31). The reason behind the signature of such decree was the lack of time to fully comply with the requirements of the environmental licensing (SEA, 00:32:31). As described by this research participant: *'[...] there was a moment that we realised that maybe we wouldn't have time, so we had a meeting in which we said: Mister President, Mister Governor, we are not gonna have time and if we follow the legal process. There is this time for the ritual, we have to submit EIA to concerned bodies, they have a legal time of 30 days to read, we can't set up a public consultation within less than 60 days, then we have 10 more days to listen to other parties to then reopen the public consultation, but this time internally for the appraisal by the Deliberative Council, then to finally issue the environmental licence [...]'* (SEA, 00:30:49). This research participant also linked the lack of time to the relationship between federal, state and municipal governments (see section 6.3.1) stating that: *'although we knew four years in*



*advance that we would hold the Games in 2007, there was the political transition that you know [...]*' (SEA, 00:09:09).

Returning to the issue of the special decree, this interviewee provided more details on how the environmental licensing was undertaken under these exceptional circumstances: *'[...] during the construction stage some licences were issued an Installation Licence instead of an Advance Licence to make it quicker'* (SEA, 00:32:31). The implications of the special decree for the environmental licensing in the context of the Games are further discussed in section 6.4.

On the other hand, another research participant, a member of the Federal Public Ministry, examined the issue of creating special mechanisms to accelerate the conduct of environmental assessment procedures due to time constraints from another perspective. In this interviewee's opinion *'many times it is not lack of planning; purposely things are left for the last minute to get something that would not be got if the regular steps were followed'* (FPM, 00:16:00). In addition this interviewee observed that because a development project is needed for a major sport event this should not be the main reason why an environmental licence is issued for it; instead in this interviewee's opinion the main reason should be that the EIA demonstrated the environmental viability of a project (FPM, 00:34:13). *'If there is no control, everything that wouldn't be licensed on an everyday basis [...] is licensed because it is for the Pan American Games. This is wrong. The argument that it [a project] is for a major event can't be decisive to license a project. The argument should be that a project will be licensed because the EIA said so. The question is bigger, what is more important, the natural and cultural heritages of a city or a major event? I think EIA is a fundamental instrument and the sustainability and environmental viabilities should be the reason for a development project'* (FPM, 00:34:13).

### 6.3.5 The Rio 2007 Pan American Games as a preparation for hosting the Olympic Games

Research participants described that at some point of the planning process of the Games it was decided that the level of sport facilities would be increased to Olympic standards in order to strengthen Rio's bid for hosting one of the editions of the Olympics Games (SERIOe, 00:23:04, SERIOc, 00:21:12, FIA, 00:07:00). According to the official report for the Rio 2007 Pan American Games, during the planning process of the Games, CO-RIO and the government made a significant decision which was to modify the Pan American project in order to elevate the standard of the new venues which were built in line with Olympic specifications (Official Report Rio 2007 Pan American Games, n.d). The upgrade from Pan American standards to Olympics standards exceeded the original budget established for the Games, resulting in the need for more federal investment in the Games, as observed by one interviewee, a member of SERIO (SERIOc, 00:21:12). As there were political issues influencing the relationship between governments at the occasion of the delivery of the Games (see section 6.3.1), a research participant observed that it was only with the alignment between governments post 2006 elections, discussed in section 8.3.1, that *'it was possible to host a Pan American Games with Olympic structure'* (SERIOb, 00:17:29).

Within this perspective, a research participant revealed that hosting the Pan American Games derived from the desire of the president of the Brazilian Olympic Committee to host the Olympic Games in Brazil (CO-RIOa, 00:00:35). In order to achieve that, the Brazilian Olympic Committee was advised by the International Olympic Committee (IOC) to first host another major sport event such as the Pan American Games to demonstrate its capacity to host the Olympic Games (CO-RIOa, 00:00:35).

The transition from Pan American standards to Olympic standards regarding sport facilities was a decisive factor for Rio de Janeiro to win the bid to host the Olympic Games in 2016. As observed by one interviewee: *'everything was done to make Rio's bid stronger. With sport facilities already in place, we would need*

*to do less later and this was a success factor for Rio to win the Olympics'* (FIA, 00:19:20). The following extract below summarises the issue of the Rio Pan American Games as a preparation to host the Olympics 2016: *'there was a vision by the organisers that a successful Pan American Games would open a door for the Olympics. So the focus was on the Olympics. Hosting the Pan American Games as a driving-test or a demonstration of competence to have a viable bid because the other Brazilian bids failed due to the lack of union between the three levels of government: municipal, state and federal. That's so true that the Pan American Games were the first time in the history of the country that the three levels of government undertook a project together'* (FIA, 00:07:00).

### **6.3.6 Concentration of the Pan American Games in Barra da Tijuca**

Another interesting finding that emerged from the conduct of the interviews was the concentration of the Games in the area of *Barra da Tijuca*. As presented in table 6.1 (see section 6.2.1), the venues for the Games were distributed in four clusters (*Barra*, *Deodoro*, *Maracana* and *Sugar Loaf*). However, the venues were concentrated in the cluster of *Barra* (or *Barra da Tijuca*) (Official Report Rio 2007 Pan American Games, n.d). The relevance of selecting a site or sites for accommodating major sports events and their related infrastructure consists in the possibility of establishing relationships between site selection and legacy issues. A research participant observed that the decision to focus the Games in *Barra da Tijuca* was made by the municipal government, the Brazilian Olympic Committee and *Getulio Vargas* Foundation (Institute in charge of preparing the Rio's bid for the Pan American Games) (SERIOe, 00:02:37).

According to official reports, the rationale for this decision is related to the fact that *Barra da Tijuca* is a new, planned and expanding district with potential for commercial infrastructure and leisure options (Official Report Rio 2007 Pan American Games, n.d; Rio de Janeiro City Council, 2008). However, this choice was challenged by some interviewees as unable to bring regeneration to the city as *Barra da Tijuca* is a new district of Rio de Janeiro which does not demonstrate the characteristics of a deprived area (SERIOe, 00:52:01;

Environmentalist a, 00:14:49). According to these research participants' views, the Games should have taken place in areas such as the city centre or the Port since these areas need regeneration actions (SERIOe, 00:52:01; Environmentalist a, 00:14:49). However, as observed by another interviewee, hosting the Games in deprived areas in Rio de Janeiro would be more complicated due to a wide range of reasons: first, the Port area is relatively small; second, the suburbs are residential areas with narrow streets, in this case it would be necessary to expropriate areas and remove residents, so the costs would be higher (AGENCO, 00:35:01). In *Barra da Tijuca*, avenues are larger because it has been planned, there are green open spaces and the quality of life is better, as described by one interviewee a member of AGENCO (AGENCO, 00:35:01). The discussion of this issue continues in the next section which addresses the legacy of the Games (section 6.3.7).

### **6.3.7 Legacy of the Games**

The present research was not intended to look at legacy issues originally (see chapter 3, section 3.3.3). However, due to the importance given by research participants to this issue during the conduct of the fieldwork in Brazil, the legacy of the Rio 2007 Games is presented in this section.

The analysis of the interviews and official reports (Official Report Rio 2007 Pan American Games, n.d; Rio de Janeiro City Council, 2008) indicates that the Pan American Games in terms of sport facilities represent an important gain to the city of Rio de Janeiro and to the country as a whole. This is particularly because the new venues were built according to Olympic standards and, therefore, they are ready to host the Olympic Games in 2016. However, a problem was identified by interviewees regarding such facilities and it is concerned for their use after the Games. According to research participants, the sport facilities built for the Pan American Games are not having an efficient use post-games, as most of them are under-utilised or used for other purposes but not sport (CCBT, 00:39:49; AGENCO, 00:33:37; Environmentalist a, 00:02:13; INEA, 00:35:22; SERIOc, 00:30:17; Environmentalist b, 00:01:48; CO-RIOb, 00:51:00, FMP, 00:42:00).

As described by a research participant, leader of a residents association, *'they built a velodrome that they spent a large amount of public money on and the velodrome is closed; they built a splendid multi-use arena that has been used for shows, so in terms of sport zero; Maria Lenck Aquatic Park is another facility that cost a lot, the Games are over, the pool is full and nothing happens. In Deodoro they built a shooting arena where nothing happens'* (CCBT, 00:39:49). Similarly, another research participant observed that *'the facilities are under-utilised, except Joao Havelange Stadium that is run by Botafogo [a Football Club], there are regular matches there, but it is not used for athletics and it has the most modern athletics track in Latin America. The Arena Multi-use is more used for shows than sport events'* (CO-RIOb, 00:51:00).

Moreover, in line with the interviews, interviewees pointed out the lack of planning in terms of the use of sport facilities post-games as one of the reasons why such facilities are not being used efficiently (INEA, 00:35:22; CO-RIOb, 00:51:50; Ernst & Young Brazil, 00:11:41).

With regard to urban infrastructure, interviews revealed that there was not any significant legacy left in terms of infrastructure (AGENCO, 00:33:37; INEA, 00:36:47; Environmentalist b, 00:07:28; CO-RIOb, 00:48:57). According to a research participant (INEA, 00:36:47), there was the dredging of the Rodrigo de Freitas Lagoon (including this action was subject to environmental licensing, as discussed before in section 6.2.1), which was considered an environmental improvement. However, apart from this intervention, *'it was not built the metro to Barra [Barra da Tijuca]. It was not built the T5 [a bus corridor] that would connect the North Area to Barra. So it has not left legacy from the point of view of urban infrastructure'* (CO-RIOb, 00:48:57).

Here it is important to note, as explained by one interviewee, a member of SERIO, the *Pereira Passos* Municipal Institute of Urbanism (IPP) produced an agenda of urban development for the Pan American Games, in which the main infrastructure interventions needed for the city were listed (SERIOe, 00:08:08). So the idea was to use the Games to foster such interventions. However, as financial resources were not sufficient to cover all projects set out by that

document, the focus was turned onto the interventions which were indispensable for the realisation of the Games (SERIOd, 00:36:40). Within this context, for instance, the dredging of the Rodrigo de Freitas Lagoon was carried out as some aquatic sports took place in that lagoon. It should be noted, as discussed before in sections 6.3.1 and 6.3.2, time and funding were major issues in the context of the Games.

Therefore it could be argued that there was not much time and funding left to invest in infrastructure. As observed by a research participant, a member of SERIO, *'as the investment had to be used to build the sport facilities, otherwise we wouldn't have the Pan American Games, there were no resources to invest in the projects for the city'* (SERIOc, 00:27:16). As acknowledged above time was a key issue for the Games. So it could be assumed that even though funding was not an issue, time would certainly be, because, as stated by one interviewee (FIA, 00:12:14), the majority of the building process was undertaken in 2006/2007, near the opening of the Games, which means that period of time would not be sufficient to carry out major infrastructure interventions, such as the ones related to metro, airport, etc. It is important to highlight that the agenda of urban development developed by the *Pereira Passos* Institute for the Pan American Games was incorporated into the dossier used by Rio de Janeiro in the bidding process for the Olympics 2016 (SERIOb, 00:20:49).

Following the perspective of infrastructure, the Games did not represent a significant catalyst in terms of urban regeneration. As discussed before in section 6.3.6, one of the possible reasons for this might have been the selection of *Barra da Tijuca* as the main area to accommodate the Games. A research participant expressed that *'if I could go back in time I would suggest to hold the Games in areas that need urban and environmental recuperation, because then we would be obligated to intervene on them'* (SERIOe, 00:45:08). Choosing *Barra da Tijuca*, the potentialities of legacy were compromised. However, some interviewees also highlighted some positive examples of regeneration, especially in the area around the *Joao Havelange* Stadium. Research participants explained that the area where the stadium is located is quite deprived so the venue acted as a revitalizing element that brought quality of life

*the Games was only validated because Rio won the Olympics 2016; this was the biggest legacy of the Pan American Games' (SERIOe, 00:27:29).*

## **6.4 Conclusions**

This chapter has presented and discussed the research findings regarding the Brazilian case study. In the Rio 2007 Pan American Games the tense relationship between federal, state and municipal governments caused by party political differences seems to have played a central role in the way the Games were planned (see section 6.3.1). Due to political conflicts between levels of government, the planning process of the Games did not progress as it should, and there was little inter and intra governmental communication for a prolonged period (here it is important to bear in mind that the three levels of government were the delivery bodies, as presented in section 6.2.4).

This situation changed in 2006 when there were elections in the country, which allowed some degree of political alignment between tiers of government. However, this occurred rather late for the Games as they were scheduled for 2007. Within this context undoubtedly time became a major limitation and in order to overcome this problem the federal government enacted a special decree considering the construction activity needed for the Games to be an emergency. Empowered by this decree, the Rio 2007 Pan American Games were allowed to bypass the regular legal steps of the environmental licensing process carried out for the new venues (see section 6.3.4).

It should be stated that the special decree referred to by a research participant (see section 6.3.4) has not been found electronically at any official source of legislation at federal, state and municipal levels. A rigorous and detailed search was conducted in the official government websites, at all levels<sup>7</sup>, where the

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<sup>7</sup> Federal level: *Casa Civil da Presidencia da Republica* (<http://www4.planalto.gov.br/legislacao>) and *Ministerio do Meio Ambiente* (<http://www.mma.gov.br/port/conama/legi.cfm>); State (Rio de Janeiro): *Assembleia Legislativa* (<http://www.alerj.rj.gov.br/>), *Secretaria de Planejamento e Gestao* (<http://www.rj.gov.br/web/seplag>), *INEA* (<http://www.inea.rj.gov.br/index/index.asp>); and Municipal (Rio de Janeiro): *Camara Municipal* (<http://www.camara.rj.gov.br/>), *Secretaria Municipal de Meio Ambiente* (<http://www.rio.rj.gov.br/web/smac/exibeconteudo?article-id=94418>)

Brazilian legislation (laws, decrees, statutes, etc) is made available to the public. By reviewing the legislation over a period of 10 years (from 2000 to 2010) some decrees and laws regarding the Games have been identified, but none of them are the special decree. Despite this, evidence gathered from other interviews point towards the combination of a lack of time coupled with the 'special arrangements' to deal with the requirements of environmental legislation (see section 6.3.2).

Within this context, Installation Licences (LI) were issued directly instead of Advance Licences (LP), which should be the first licence issued in line with the legal sequence established by resolution CONAMA 237 on environmental licensing (see chapter 5, section 5.3). Therefore, the enactment of the decree had an important impact on the planning process of the Games. The fact that the environmental licensing process was not fully followed as set out by the pertinent regulation affects the decision-making and the implementation and enforcement of the environmental licensing process.

By issuing LI instead of LP, the environmental licensing process was not implemented according to resolution CONAMA 237<sup>8</sup>. Further, this might also have created consequences for the project design as it is during the stage of requiring the Advance Licence (LP) that the impacts are identified, the mitigation measures are stipulated (as conditions of the LP) and subsequently changes in the design are undertaken to accommodate such measures before applying for the Installation Licence (LI).

It could be argued that the enforcement process might also have been compromised in this context of 'skipping' licenses. The state agency for the environment was responsible for verifying whether the mitigation measures encapsulated as planning conditions for the Previous Licence were met or not. However, when this first stage does not take place at all, it could be argued that an important opportunity of enforcement of mitigation measures is wasted.

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<sup>8</sup> Here it should be noted that subsequently a state decree signed in 2009 on the state environmental licensing system of Rio de Janeiro sets out the possibility of being issued by the state agency for the environment advance license along with installation license (INEA, 2011).



Summarizing the argument so far, it is possible to conclude that the environmental licensing, due to time constraints and enactment of a special decree, did not properly inform the planning process of the Games as a whole, reducing its potential as decision-making and planning tools.

Figure 6.2 illustrates the discussion provided above by showing the way the environmental licensing process was carried out for the new venues of the Games (except the Pan American Village that had an EIA undertaken), under the influence of the special decree.

Fig. 6.2: Steps of the environmental licensing system in Brazil.  
Source: Based on Glasson and Salvador, 2000.

Highlighted in red are the regular steps of the process which were avoided in accordance with the special decree, corroborating the argument just discussed.

Figure 6.3 below summarizes the key findings related to the Rio 2007 Pan American Games. The arrows show the links and relationships amongst different findings associated with the categories established in the analytical framework for the case studies (environmental impact assessment and decision-making) (see chapter 2, section 2.4).

In next chapter, the data collected from the interviews undertaken in England with key stakeholders associated with the London 2012 Olympic Games are presented following the same structure as the present chapter.

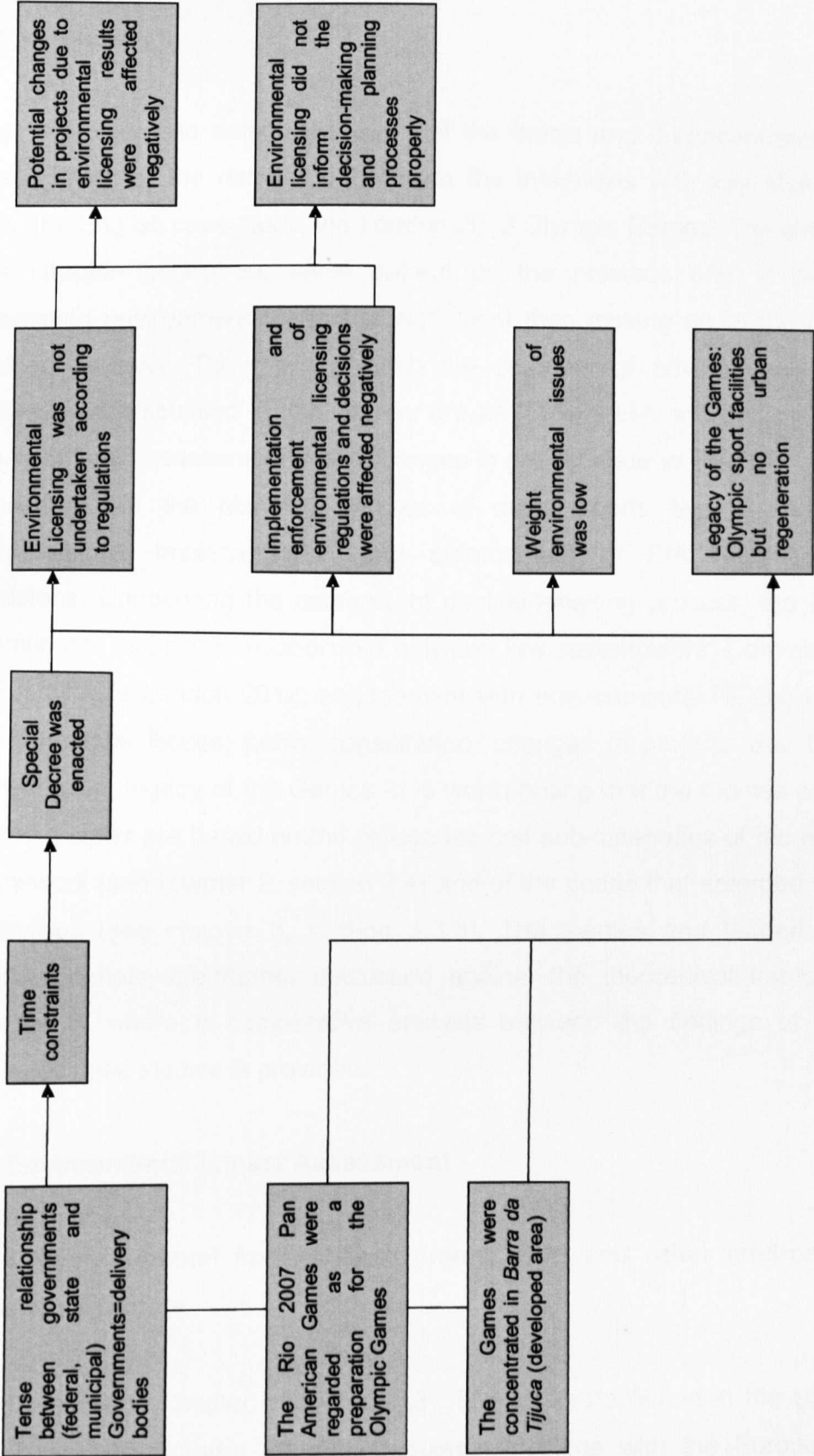


Fig. 6.3: Key findings related to the Rio 2007 Pan American Games.  
Source: The author, 2011.

## **7 ENGLISH CASE STUDY – THE LONDON 2012 OLYMPIC GAMES**

### **7.1 Introduction**

This is the second empirical chapter of the thesis and it concentrates on the presentation of the data collected from the interviews with key stakeholders from the English case study, the London 2012 Olympic Games. The structure of this chapter follows the same pattern as the previous one. It begins by examining environmental impact assessment then moving on to the decision-making process. The themes within the category of environmental impact assessment discussed in this chapter are as follows: EIA and the use of other environmental assessment tools; changes in projects due to EIA; EIA and other procedures in the planning process of major sports events and related infrastructure; implementation and enforcement of EIA regulations and decisions. Concerning the category of decision-making process, the following themes are examined: relationship between key stakeholders; Commission for a Sustainable London 2012; engagement with environmental NGOs; weight of environmental issues; public consultation; changes in projects due to public consultation; legacy of the Games. It is worth noting that the themes examined in this chapter are based on the categories and sub-categories of the analytical framework (see chapter 2, section 2.4) and of the codes that emerged from the interviews (see chapter 3, section 3.3.3). The themes and related findings presented here are further discussed against the theoretical framework in chapter 8, where a comparative analysis between the findings of the two research case studies is provided.

### **7.2 Environmental Impact Assessment**

#### **7.2.1 Environmental Impact Assessment (EIA) and other environmental assessment tools**

As discussed in chapter 5 (section 5.3), EIA was established in the UK under the Town and Country Planning regulations in line with the European EIA Directive. Examining the information provided by research participants, it is

possible to conclude that EIA is perceived by them as principally a legal procedure which must be undertaken. This is illustrated by a member of the Olympic Delivery Authority (ODA), who stated: *'The EIA is part of the planning requirement [...], it is part of the application and that informs the planning'* (ODAA, 00:20:51).

Although the interviewees were aware of the legal requirements of EIA, many of them were unable to describe how the process was conducted for London 2012. The research participants whose comments on this issue were more detailed were the ones involved more directly with sustainability, environment and planning matters on the ODA, the London 2012 Organising Committee of the Olympic Games and Paralympic Games (LOCOG), the EIA Consultancy and Olympic Park Legacy Company (OPLC).

Moving to the use of other environmental assessment tools in the planning process of London 2012, research participants pointed to the employment of the following tools:

- a) Health Impact Assessment: *'there was in fact a separate health impact assessment undertaken'* (EIA Consultancy, 00:06:20);
- b) Social-infrastructure provision modelling: *'we have a piece of software that looks at social-infrastructure provision, it looks at school places, health, etc'* (OPMP, 00:23:44);
- c) Flood Risk Assessment: *'there was a flood risk assessment'* (EIA Consultancy, 00:06:20);
- d) Equality Assessment: *'we had an equality assessment that was undertaken'* (ODA PDT, 00:18:18) and *'we have already done what is called an equality impact assessment'* (OPLC, 00:36:11).

Besides these tools, some others, such as socio-economic impact assessment and those associated with climate change, carbon footprint and ecological

footprint were pointed out by research participants as examples of some additional assessment tools used in the Games in order to assess the environment as a whole. It should be highlighted that the documentation generated as a result of the use of those tools sits alongside the Environmental Impact Statement (EIS), which sets out the conclusions of the EIA: *'what it [the EIS] tried to do was to pull together the findings of all those different assessments in the core'*, explained a research participant a member of the EIA Consultancy team (EIA Consultancy, 00:06:20). It is important to stress that the conduct of sustainability appraisal was not mentioned by research participants, although it is a legal requirement of the Planning and Compulsory Purchase Act 2004 for plans (see chapter 4, section 4.4).

### *Does Environmental Impact Assessment (EIA) change projects?*

The EIA process should have a significant influence on projects, reflecting changes which would ultimately improve proposals. In the case of London 2012, based on the interviews conducted, it seems that changes were made in projects due to EIA results because some stakeholders conceive EIA as a design tool (see chapter 2, section 2.2). As highlighted by a research participant, a member of the EIA Consultancy, *'if EIA is to be adding value to the project what it should be doing is to make recommendations on how the project should be refined, how design should be changed in response to the adverse environmental impacts identified and try to mitigate those impacts'* (EIA Consultancy, 00:04:55). According to one interviewee, a member of the Olympic Park Master Plan Team, there were changes in the design of projects within the Olympic Park, as a result of the EIA process, in terms of position and scale of buildings (OPMP, 00:13:43). However, as suggested by a research participant, a member of the EIA Consultancy Team, it appears that the most significant influence of the EIA was related to *'the various management measures that were factored into the project during the design phase, during its construction and also the post-completion phase in terms of measurement measures necessary to make sure that the ongoing commitments were met in terms of pollution control, traffic, etc'* (EIA Consultancy, 00:04:55).

Another interviewee, a member of the ODA Planning Decisions Team, confirmed that there have been changes to the Olympic Park Master Plan and explained that the ODA operates within the framework of the EIA, assessing the changes on an individual basis (ODA PDT, 00:07:17). In addition, this research participant explained that the Olympic Park was initially assessed as a whole, then subsequently, there was a series of secondary assessments associated to some of the changes and a reappraisal of the robustness of the original EIA against these emerging schemes (ODA PDT, 00:07:17). Regarding changes in projects, this interviewee concluded by observing that *'the biggest challenge on the EIA front has been the changes and how we deal with the changes and also securing the mitigation'*, particularly in order to ensure ODA meets its sustainability commitments (ODA PDT, 00:07:17).

### **7.2.2 Environmental Impact Assessment (EIA) and other environmental assessment tools in the planning process of major sports events and related infrastructure**

Although the interviewees belong to a wide range of governmental bodies, private companies, independent bodies, Olympic Delivery Authority (ODA), London 2012 Organising Committee (LOCOG) and NGOs linked with the London Games (for more details see chapter 3, section 3.3.2.1), the majority of research participants perceive EIA and other assessment tools as an aid to the planning process of major sports events and related infrastructure. As one interviewee, a member of BioRegional, observed: *'I think it is actually a good thing to do an environmental assessment because it is more information, more analysis about what it is and what the decision-maker has to decide'* (BioRegional, 00:39:34).

However, research participants pointed out a series of obstacles that can compromise the positive aspects of undertaking an EIA. For example, some interviewees argued that EIA is frequently seen and used as a 'tick box exercise', or 'check list exercise' and 'book shelf tools'. In their opinion, this can limit the real benefits of carrying out an EIA. As a research participant explained: *'they [environmental assessment tools] are not useful if you just use*



*it as a check list, we passed on this, we passed on that, because I think the real value is in the synergy of all those issues [of design and EIA] [...]* (OPMP, 00:28:20). In addition, one interviewee, a member of WWF, highlighted that *'sometimes it [EIA] converts sustainability into a sort of tick box exercise and sometimes it can constrain an approach [such as sustainability] [...]* (WWF, 00:15:20). According to another research participant, a member of the ODA Community Relations, EIA and other assessment tools are positive procedures *'as long as [...] they don't become book shelf tools that nobody will go through'* (ODA CR, 00:20:24).

The 'tick box exercise' problem may be also linked with what appears to be a lack of integration and engagement between the EIA team, design team and planning authorities. According to a research participant, these three groups tend to work separately, each one focusing on their own priorities (OPLC, 00:48:44). This might be one of the reasons why EIA becomes a 'tick box exercise', because perhaps there is not enough integration taking place between these stakeholders. Instead, *'the EIA process doesn't need to be outside the design process, it should be part of the design process. It should be an integrated process involving these teams [EIA, design and planning authority]'* (OPLC, 00:48:44). Possibly by integrating EIA and design teams, EIA would not be seen as a *post-hoc* rationalisation for something that has been already decided to be done, which represents another problem identified by research participants.

The delivery bodies of London 2012 seem to have understood the importance of bringing design and EIA teams together from the beginning of the master plan project. The concept underlying the process was to use EIA as a creative tool in the design stage (OPMP, 00:10:17). According to one interviewee, a member of the Olympic Master Plan team, *'what we did was, all the way through the design process what would be the environmental impacts of every single one of these decisions. So we didn't wait until the end to evaluate it, we used it [EIA] continually in the process of assessment and investigation to keep making the scheme better, so we used it as a design tool'* (OPMP, 00:10:17). It is important to bear in mind that this process might have had some limitations;

however, it does seem to have taken a more integrative approach in terms of EIA and design into account. As observed by a research participant, a member of the ODA Planning Committee: *'I am not saying that what has been done in the Olympics is perfect, but I would hope this kind of integrative approach is something that it seems better to me, in my experience'* (ODA PCb, 00:21:47).

There are other issues which may affect the quality of an EIA process as outlined by research participants. Apparently, there is a fear of not having enough information when it comes to compiling an EIS and also a fear of legal challenge by third parties regarding the results of an EIA. As observed by a member of the ODA Planning Decisions Team, *'[...] there is a fear around not having enough information. I think that's something planning in this country fears generally, because it is always easier to keep asking questions rather than actually making a decision'* (ODA PDT, 00:49:14). In relation to this issue of fear of legal challenge, an individual a member of the EIA Consultancy team for the Olympic Park stated that *'earlier there was the concern about legal challenge and that's in a sense what is driving promoters to produce very exhaustive EIAs, because they want to avoid challenge'* (EIA Consultancy, 00:24:08).

The fear of legal challenge in relation to EIA may also be connected to the great length of the documents generated from the EIA. As observed by one interviewee, a member of the ODA Planning Decisions Team, *'who is going to sit down and read volumes and volumes of stuff?'* (ODA PDT, 00:25:25). It seems the length of EIA documentation also reflects the fear of not having enough information, which could lead, consequently, to a possible legal challenge.

As explained by a research participant, it would be difficult to reduce the size of these documents without compromising the level of detail needed for each aspect of the EIA. *'The problem is if you have a statement 150 pages long, so 10 pages per chapter, so for example, you have 10 pages for archaeology, 10 pages for [...] that would not be enough to describe the features, so that's why they have grown'* (LOCOG, 00:15:26). However, as pointed out by another research participant, there would be a more efficient way of undertaking it in

practice, much more focused on how the EIA could influence the design of a project, *'making sure it is a better project in terms of environmental terms rather than just producing heavy documents to meet statutory requirements'* (EIA Consultancy, 00:24:08).

Perhaps a potential solution to this problem could be some more up to date government guidance on EIA since the lack of such extra guidance was also identified as a problem by research participants. As suggested by one interviewee, a member of the ODA Planning Decisions Team, *'EIA in terms of government guidance is certainly complex, certainly will be helpful if someone can simplify, but it is not gonna happen, but maybe some up to date guidance from the government would be good'* (ODA PDT, 00:21:26). By making EIA more accessible it could possibly solve another problem identified by interviewees in England: the limited number of experts on EIA working for planning authorities. As stated by a research participant, *'from the local authorities' perspective there are a few experts in house able to have the confidence enough to assess it [EIA]'* (ODA PDT, 00:21:06). London 2012, as added by this interviewee, has a privileged situation in which the ODA employs special consultants in house just to examine EIA and sustainability issues (ODA PDT, 00:21:06).

Another problem identified by research participants in England is concerned with the fact that mitigation measures are still not a legal requirement of the EIA. A research participant, a member of the ODA Planning Decisions Team, suggested that *'it would be really helpful if it was made absolutely a requirement of all EIA that there is a mitigation schedule put in and how that mitigation is going to meet your plan [...] I think that's a major element missing'* (ODA PDT, 00:31:29).

With regard to the International Olympic Committee (IOC), it seems they are looking at environmental issues and sustainability more carefully, since the environment represent one of the three pillars of the Olympism, a movement that aims to build a better world through sport (Olympic Movement, 2011). Following this perspective, EIA could become an important tool which should be

considered by the IOC when assessing the candidate cities: *'I think that's something the IOC wants to see that wherever the Games take place, an environmental assessment has been done'* (BioRegional, 00:39:34). According to another interviewee, a member of WWF, the IOC still has to improve the environmental considerations in its process. This research participant believes that *'there is an opportunity for the IOC here to view environment not as kind of a risk to be managed, an impact to be mitigated and addressed, but as something to be embraced, to become part of the core of the brand values of what they do and for that to transform the way the movement moves forward'* (WWF, 00:15:20).

Based on the interviews conducted, there is no doubt that the key stakeholders involved with environmental issues in the London Games perceive EIA and other environmental assessment tools as positive procedures in the planning process of major sports events and associated infrastructure, as long as they are not seen and used as 'tick box' tools, detached from the core of a development project. In contrast, only one research participant, a member of the LOCOG (also responsible for delivering the temporary venues), stated a different opinion compared to the rest of the interviewees. In his opinion, the environmental impacts from a temporary venue (which is disassembled at the end of the event) are different from those from a permanent building: *'the environmental impact assessments we have looked at, it is unique, and it is different from an environmental impact assessment for a permanent building'*, this interviewee explained (LOCOG, 00:07:09). In addition, this research participant also commented on the nature of major sports events which are all temporary, taking place in a short space of time, so *'it takes us longer to put together an environmental statement than actually carry out the development'* (LOCOG, 00:07:09).

### **7.2.3 Implementation and enforcement of Environmental Impact Assessment (EIA) regulations and decisions**

All the interviewees were unanimous concerning the issue of implementation and enforcement, stating that there are regulations and procedures in place to

ensure that EIA is implemented and enforced properly. As highlighted by a research participant, a member of the EIA Consultancy Team: *'the UK takes EIA very seriously. It is an EU Directive that we have and it is now the UK law [...] we perceive to implement in course and the way in which that it is done on this project and other development projects in the UK is that the mitigation measures, which are recommended by the EIA, are then encapsulated in either legal agreements or in conditions and those legal agreements are then enforced by the planning authority and other regulatory bodies and the conditions attached to the planning permission and the conditions attached to others like Environmental Agency are by and large rigorously enforced by the authorities concerned'* (EIA Consultancy, 00:17:01).

In addition, research participants also stressed the role of local authorities and other regulatory agencies as enforcers of the EIA process. As highlighted by a research participant, a member of the Olympic Park Legacy Company: *'the planning authorities take this quite seriously, they will need to see proof, you have to demonstrate that you delivered all the planning obligations [...] they will check to make sure'* (OPLC, 00:00:09). Another interviewee, a member of the Olympic Park Master Plan, pointed out that: *'when you build, the planning authority has the right to come and inspect that and also at the technical level, the building regulations, that you said you are going to use, someone will check that. And it happens'* (OPMP, 00:15:55).

Still regarding to this issue, one interviewee, a member of the EIA Consultancy Team, provided a more detailed description of the EIA implementation and enforcement processes in the context of the Games: *'certainly in the case of the Olympic development, the Planning Authority, the Boroughs, Environmental Health, Environment Agency ensure that all of the mitigation measures included in the EIA have been implemented. And there are steering groups, monitoring groups to make sure that it is been done in regular meetings between the promoter and the regulatory authorities to make sure that everything has been completely implemented. I think where things are going slightly wrong the regulatory authorities will be very quick to make sure that there are issues to be ratified, so it is implemented as it should be. I think it is fair to say the ODA has*

*a good record of how the project is meeting its environmental obligations. I think as far as the Olympics go, things are done to make sure that this is an exemplar project, so the relevant agencies concerned are being very careful to make sure that these checks are undertaken'* (EIA Consultancy, 00:17:01).

Besides planning authorities and other relevant agencies in charge of ensuring that EIA regulations and results are implemented and enforced adequately, some other enforcers were also identified by research participants as being as efficient as the former; these are pressure groups and the public. The pressure groups according to one interviewee, a member of the Olympic Park Master Plan Team, *'are watching very carefully and the reality is that as an Olympics or a major event, you are a huge media opportunity for those groups, so if you make a mistake then the world will know about it about 5 hours later'* (OPMP, 00:15:55). To one interviewee, a member of the ODA Planning Decisions Team: *'the best enforcers are the members of the public'* (ODA PDT, 00:45:26). The Commission for a Sustainable London 2012 (see this chapter, section 7.3.1) was also identified by interviewees as another type of enforcer: *'we have an external agency which is the Commission for a Sustainable London 2012, who are external auditing as well and they publish their reports'* (WWF, 00:04:22).

It should be noted that other points of view and perspectives regarding the enforcement process for London 2012 were also mentioned by research participants during the interviews. For instance, to one interviewee, a member of the DCMS, enforcement is linked with a clear understanding of roles and communication (topics discussed in section 7.3.1): *'enforcement comes back to communication too, enforcement and communication are exactly at the same side of the coin, it is about people understanding why they are there'* (DCMS, 00:12:56). This research participant also added that for the Games so far, no enforcement procedure has been needed *'because there is the clear understood hierarchy and the understanding that each stage of that hierarchy has been given its authority to do its job'* (DCMS, 00:12:56). Similarly, one interviewee, a member of the EIA Consultancy, observed that *'all people involved have to know their responsibilities'* in order to do a proper job and avoid problems with enforcement (OPMP, 00:15:55).

Another example is concerned with the issue of co-responsibility for major sports events in not breaking any laws which would ultimately compromise their image and reputation internationally. According to this perspective, the interviews revealed that there is an interesting relationship between fear of damaging the image of the Olympic Games brand and enforcement, in which such fear acts as an enforcement mechanism. This link can be illustrated by the comment made by a research participant, a member of the LOCOG, who observed: *'the biggest point is the social-conscience of a large organisation and the co-responsibility to the public that a body like this cannot be seen to break or bend any rules that everybody else follows, so it is a huge co-responsibility. The bad press that the games will receive not only from the London perspective, but from worldwide would be shared by London 2012, the IOC and everybody else and it is not the intention of the Games to carry out anything but promoting sport, wellbeing and sustainability'* (LOCOG, 00:24:38).

It is apparent from the interviews that the need for a rigorous enforcement process can be reduced when the key stakeholders responsible for delivering a major sport event make clear commitments regarding the environment from the beginning of the planning process and embrace them all the way through the project. Moreover, the interviews also suggest that there is a strong sense of doing what is 'right' in the context of the Games. As observed by a research participant, a member of the ODA: *'we want to do it well, we want to do it right. We can probably get away with doing a lot less if we choose to, but we want to do it as well as we can'* (ODAb, 00:34:46). However, this interviewee observed that *'it is really up to the employer to be serious about that, if the client, the government are serious to do it well then they have to police themselves and actually follow it through. If they just write the documents and say we don't really mean it, it won't happen because it is easy not to do it, easier not to do it'* (ODAb, 00:38:18).

As noted by another interviewee, a member of the Olympic Park Master Plan Team, the enforcement should not be seen as a difficult issue because *'it is just getting people actually doing it and doing it well and believing it'* (OPMP, 00:15:55). Also in line with this perspective, one interviewee, a member of the

Olympic Park Legacy Company, suggested that *'the only way of these things [enforcement] ever work is if the underlying philosophy becomes internalised by the companies and I will be honest with you I think the only way that that happens is that they internalise. That's the right thing to do, not because that's the law but because that's the right thing for them to do'* (OPLC, 00:08:22).

Based on the interviews conducted, it appears that the enforcement of EIA regulations and decisions in the scope of the Games is not facing any particular difficulties. Both regulations and results are implemented and enforced properly. More specifically in terms of enforcement, it seems *'so far nothing has needed to be necessary'* (DCMS, 00:12:56) and *'the external enforcement is actually quite light'* (ODAb, 00:36:53), mostly because, London 2012 apparently aims to organise the greenest Olympics ever, so they have embraced sustainability and environmental issues, making sure they are embedded in every single decision they make. For this reason the enforcement, especially the external one, has its role reduced (or it is 'quite light' as stated by the interviewee above) since it seems London 2012 has chosen to do to what it is 'right' for the project.

### **7.3 Decision-making Process**

#### **7.3.1 Relationship between key stakeholders**

The matter of the relationship between stakeholders of a major sport event is a sensitive one, especially when it involves different delivery bodies at different levels of government. A tendency appears to exist for governments in general to centralise the power and decisions regarding the planning process of a major sport event, as the Brazilian case study suggests (see chapter 6, section, 6.3.1), although such an approach may not always be ideal for the project. This is illustrated by a research participant, a member of the ODA, who stated: *'it is very tempting for governments to control things because they are the elected body [...] and they hate sitting back and leaving others to take the responsibility. They want to be getting there and doing it themselves and that is always bad for the project, because generally they are not the best people to do it and they are*



*motivated by other factors, not the best interest or the best value, they are interested in politics [...]* (ODAb, 00:17:15).

In relation to the political aspects influencing the relationship between key stakeholders, a similar situation was also observed by another research participant, a member of the ODA Planning Committee: *'I think it is hard to talk about communication and relationship amongst stakeholders without talking about politics [...]* (ODA PC, 00:07:59). This interviewee illustrated his point by describing that it is a common situation in the Olympic Park, for example, to have different stakeholders, such as the London Mayor, the ODA and the Boroughs aiming for different issues, based on their agenda of priorities (ODA PCa, 00:07:59).

However, there is a formal process set up by the ODA itself to reconcile those different views. As explained by a research participant, a member of the ODA Planning Committee, there are planning officers in the ODA who meet the different parties involved in competing issues, try to reconcile their problems and brief the ODA Planning Committee (ODA PCa, 00:07:59). *'So they [Planning Officers at ODA] will say Newham wants this, Hackney wants that, we [ODA Planning Committee] can say actually we agree with Hackney, but we don't agree with Newham and often they [Planning Offices at ODA] will come back with the modified solution where there is a balance between all those competing objectives'* (ODA PCa, 00:07:59).

According to this research participant, a member of the ODA Planning Committee, because the ODA Planning Committee has been in existence for four years with the same membership throughout this period of time, the Committee has a deep understanding of what the competing issues are along with a detailed knowledge of the Olympic Park project itself (ODA PCa, 00:07:59). This situation is positive since it reduces the influence of political issues in the planning process. As observed by this interviewee, a member of the ODA Planning Committee: *'If it [ODA Planning Committee] was more political, more like a Borough Planning Committee [...] the membership would have changed loads of times during that period of time and the expertise would*

*be lower and the people would be less, it would be more amateur, what would make it more difficult to get it [the Olympic Park project] right'* (ODA PCa, 00:07:59).

In terms of the relationship between different government bodies responsible for delivering the Games, one interviewee raised the issue that competition and disagreements take place, but quietly. According to this research participant, a member of the Olympic Park Master Plan project, disagreements between governmental bodies happen for several reasons: *'you get fights because lots of people want to take credit for things, but they don't want to take responsibilities, you get fights because people take a very authoritarian view that there is one right answer and there are probably several answers, but we need to make a decision. There is a big fight about money'* (OPMP, 00:42:23).

On the other hand, regarding the relationship amongst different stakeholders (including government, such as the Department for Culture, Media and Sport (DCMS), other delivery bodies, such as LOCOG, and independent bodies, such as the Commission for a Sustainable London 2012), based on the answers provided by research participants, it seems this relationship is relatively satisfactory as highlighted by one interviewee, a member of the LOCOG: *'I think on a whole the relationship with the government [Central] is very good, there are clear lines of communication, so I think methods are in place, so if there are issues around they can be discussed openly or privately, so I don't think there is much of an issue there'* (LOCOG, 00:03:45). Similarly, a research participant, a member of the Commission for a Sustainable London 2012, pointed out that: *'I think we have built up quite a good relationship with each of the delivery bodies'* (CSL, 00:10:34). However, this interviewee recognises that this relationship can face some difficulties: *'you asked what's the relation like and I will be honest, sometimes it does get quite hot when we have discussions about things they should be doing in our view. But when we do ask for a feedback from the delivery bodies, [...] it is really positive'* (CSL, 00:25:47).

Moreover, it became apparent during the conduct of the interviews that the Commission for a Sustainable London 2012 is perceived by the key

stakeholders as a helpful and reliable independent assurance body to ensure London 2012 meets its sustainability commitments. This finding is in accordance with the Commission's aim, which is 'to be a credible point of reference with respect to sustainability assurance issues' (Commission for a Sustainable London 2012, 2010b). Therefore, because of its relevance in terms of sustainability to the planning process of the Games, the Commission for a Sustainable London 2012 is considered in more detail still in this section.

Concerning the relationship between the DCMS and other stakeholders, such as the ODA, the LOCOG and the London Mayor, a research participant, a member of DCMS, outlined that this relationship *'is not bad actually, it is pretty good because this is what we have been set up for, so there are teams with experts working with LOCOG, ODA. We have a right to interfere, that's our role, but we also have people who build up relationships with the counterparts in the organisations, so for the most part it works very well'* (DCMS, 00:06:28).

The issue of having a clear understanding in terms of roles is particularly important for the success of the relationship amongst stakeholders involved in the planning process and delivery of major sports events. Analysing the interviews conducted, this issue was identified by research participants as crucial for a positive and constructive relationship amongst stakeholders. As one interviewee, a member of the Olympic Park Master Plan project stated: *'you have to have clear roles; these people are in charge of this, these people are in charge of that. I think it is really important to be very conclusive and pointed about who is doing what, who is responsible for what'* (OPLP, 00:42:23). Otherwise, the lack of clear roles might have negative consequences for the planning process of the Games, as observed by a research participant, a member of the Olympic Park Legacy Company: *'what tends to happen is that there is lots of discussion, there is not much planning going on and when you have to build, then you tend to waste a lot of money'* (OPLP, 00:42:23).

In addition, a research participant, a member of the DCMS, explained that there is a clear understanding amongst the delivery bodies that the Olympic Board is located at the centre, which means all the other bodies have to report to it

(DCMS, 00:10:40). One of the roles of the DCMS, as described by this interviewee, is to advise the Olympic Board in different regards, including the issue of roles, however, *'each organisation understands its responsibility, it has to'* (DCMS, 00:10:40).

In terms of the relationship between key stakeholders, the engagement and communication between the Games and the communities where the event takes place are also important. In order to establish a constructive relationship between these two stakeholders, the ODA has set up a Community Relations Team, which is responsible for managing the communications and relations between the residents, business and the contractors (ODA CR, 00:00:20). A research participant, a member of the ODA Community Relations, explained that the communication process involves two approaches: internally, there are communications and relations with contractors, and externally, there are communities around the Olympic Park the ODA is building, so they manage the communities and local business in terms of relationships through communications and publications (ODA CR, 00:00:20).

The Community Relations Team is also responsible for managing the construction hot line, which is a 24h/7days/week hot line offering among other things education programmes with projects such as construction crew, health and safety and engaging with communities through meetings in the four different Boroughs that circle the Olympic Park (ODA CR, 00:00:20). Regarding the community meetings, one interviewee, a member of the ODA Community Relations, pointed out that on such occasions the Community Relations Team provides local communities with updates on the construction programme and on details of specific projects, which enables the community to have a direct contact with the project team responsible for delivering the venues (ODA CR, 00:00:20). The Community Relations Team also offers tours around the Olympic Park site and other programmes for visitors: *'we have a visits team [...] and I personally do visits on the Park specifically to speak to residents on open days and that's how we try to engage people to actually understand what's happening'*, explained a research participant, a member of the ODA Community Relations (ODA CR, 00:00:20).

Regarding communication and engagement with local communities, it should be mentioned that the researcher attended one of the community meetings held by the ODA Community Relations at a primary school in Hackney (one of the four Boroughs involved in the Games). There was a school fair taking place and members of the Relations Team were present distributing published material as well as answering residents' queries. The researcher spent some time with the Team and it was positive to observe the engagement of that local community, since a large number of people approached the Team at that occasion asking specific questions about the projects regarding their area. Another interesting experience was the researcher's participation in the tour also provided by the ODA Relations Team around the Olympic Park site. This service represents an important opportunity not only for local communities associated with the Games but also for communities from everywhere to learn about the construction process of the venues. The tour is also important because it can be seen as an interesting vehicle to disseminate environmental and social messages about the Games. These are two positive examples on how to engage people in a constructive way.

#### *Commission for a Sustainable London 2012 (CSL)*

The Commission for a Sustainable London 2012 (CSL) is an independent body which was established in 2007 with the aim of providing 'assurance to the Olympic Board and the public on how the bodies delivering the London 2012 Olympic and Paralympic Games and legacy are meeting their sustainability commitments' (Commission for a Sustainable London 2012, 2010a).

The aim of the Commission can be divided into three action areas: providing assurance, acting as a critical friend and engaging with wider stakeholders (Commission for a Sustainable London 2012, 2010b). In terms of assurance, the Commission follows an Assurance Framework, which generates the following documents: annual reviews (reviews of sustainability performance across the London Games programmes); thematic reviews (detailed reviews of specific issues); and snapshot reviews (short reviews of specific issues) (Commission for a Sustainable London 2012, 2010b). As a critical friend, the

Commission provides advice, informally or on request, in order to contribute for the Games to meet their sustainability commitments or to respond to potentially difficult issues, such as the use of PVC fabric and HFCs (Commission for a Sustainable London 2012, 2011a). Regarding the engagement with wider stakeholders, this allows the Commission to report openly their findings on the progress of the Games in terms of sustainability targets in special meetings (Commission for a Sustainable London 2012, 2011a).

As acknowledged before in this section, the importance and credibility of the Commission both for the planning and for the decision-making processes was highlighted by the majority of the research participants during the conduct of the interviews. The fact that the Commission is a body which is independent from the government and other delivery bodies is perceived as a credible aspect. As observed by a research participant, a member of BioRegional: *'they [CSL] are doing a great job, they are an independent body and that's one big recommendation for Rio, because they are an independent assurance body, they can get access to all of the information they need in order to do reports'* (BioRegional, 00:04:13).

The Commission is also seen by other interviewees as an important example to be followed by other major sports events, as pointed out by a research participant, a member of WWF: *'I think this is another lesson to learn, London decided to set up an independent assurance body called Commission for a Sustainable London 2012. They were established to independently scrutinise and they have the ability to really get into and ask difficult questions and they report to the board level, to stakeholders. The setting up of that commission and their reporting process gave WWF a lot of confidence that the plans are put in place by the ODA, LOCOG and the other delivery partners'* (WWF, 00:12:30).

Here it should be highlighted that this is the first time that an independent commission has ever been set up to ensure the sustainability commitments of a major sport event, so this is a unique experience for London 2012 (Commission for a Sustainable London 2012, 2011b). It is also important to stress that the recommendations the Commission has proposed are being taken into

consideration by the bodies delivering the London Games; as one interviewee, a member of this Commission, stated that 2/3 of the recommendations made have been incorporated by the delivery bodies (CSL, 00: 08:21). According to this research participant, the Commission has a table with the status of each recommendation, so they know exactly the status of each recommendation (CSL, 00: 08:21). Besides, the latest annual review published in April 2011 reveals that the Commission is 'currently confident that London 2012 is on track to deliver unprecedented levels of sustainability' (Commission for a Sustainable London 2012, 2011c, n.p).

Regarding the enforcement process of the recommendations, this research participant explained that *'if they find any unsatisfactory performance, they can take that to the Olympic Board, but so far all unsatisfactory points have been solved'*. (CSL, 00:15:46). The fact that 2/3 of the recommendations made have been implemented by the delivery bodies, without using any external enforcement procedure, may mean that there is a clear communication channel and consequently a satisfactory relationship amongst the Commission and other delivery bodies, which contributes positively to the decision-making process.

As mentioned before in this section, one of the roles of CSL is to act as a critical friend of London 2012. Besides the Commission, there are two other institutions which also act in an advisory capacity: BioRegional and WWF (for more details see chapter 3, section 3.3.2.1). These environmental NGOs played an important role at the bid stage of the Games, because they worked in partnership with London 2012's environmental team in order to produce a bid strategy for the Games, generating the document called 'Towards a One Planet Olympics', which details underlining principles for sustainable development (BioRegional, 00:00:24).

According to these principles, London 2012 has proposed a wide range of sustainability themes, covering the following areas: zero carbon; zero waste; sustainable transport; sustainable materials; local and sustainable food; sustainable water; land use and wildlife; culture and heritage; equity and local

economy; and health and happiness (BioRegional, 2011b). From the beginning, BioRegional and WWF have helped to enable London 2012 to achieve its sustainability commitments. As observed by a research participant, a member of BioRegional: *'what we do is to look for gaps and see how we might be able to help'* (BioRegional, 00:04:52). On a similar matter, one interviewee, a member of WWF, outlined that *'we are acting in an advisory capacity on one hand, but also like a watch dog, making sure that plans are being developed'* (WWF, 00:09:00).

At the post-bid stage, although WWF and BioRegional still advise London 2012 and they are still considered special stakeholders, the influence of their roles has reduced, since the number and influence of other stakeholders have increased. This is observed by two research participants, members of BioRegional and WWF: *'the critical side of my role is getting less and less because their role [CSL] is getting bigger and bigger, as it should be'* (BioRegional, 00:04:13); *'it is certainly true to say we are less influential now than we were at the beginning'* (WWF, 00:09:00).

The initiative adopted by London 2012 of co-working with environmental NGOs at the beginning of the planning process seems to be unique in the sense that *'this has never been done before, this model, this close work with an environmental NGO'* (BioRegional, 00:05:48). So, apparently, this is the first time a major sport event has worked jointly with environmental NGOs from the beginning of the planning process in favour of sustainability. The relevance of involving and engaging with NGOs and other key stakeholders from early stages of the planning process is highlighted by a research participant, a member of WWF: *'I think getting involved right from the beginning is absolutely key, because I think if you don't have the right plans, if you don't have the will, the support and the concept at the beginning, then, it doesn't come later. I think in the end lots of things will change, but the games will be based on the bid, so if sustainability and environment are a key part of the bid, then to some extent that will be delivered'* (WWF, 00:09:00).



### 7.3.2 Weight of environmental issues

The majority of research participants stated that environmental issues have been taken into consideration and they have a significant weight in the decision-making process of the Games. This finding is supported by a research participant, a member of the ODA Planning Decisions Team, who stated that the environment dimension *'is absolutely embedded in everything that the ODA design team is doing, it is one of the core principles of the ODA, so absolutely, I think it runs through out everything [...]. It is at the heart of what ODA does, of what we scrutinise'* (ODA PDT, 00:11:11).

Another research participant, a member of the DCMS, agrees with the fact that environment and sustainability are at the core of the decision-making process of the London Games, by explaining that *'[...] the ODA themselves have made clear from the start that one of the most important things for them was ensuring that sustainability was embedded at the very early stage. We [DCMS] want this to happen and it has been embedded since the design stage, in the planning stage all the way through [...]. I am not claiming it is perfect, nothing is ever perfect, but we have, without being remotely cynical about it, tried to put this at the very key, the very core of the entire decision-making process and they [ODA] have been doing that on absolutely everything. Now we move close to the Games we've got sustainability in all the documents that drive the way things are done, it is there, in every single document'* (DCMS, 00:16:35).

To another research participant, a member of the ODA, the weight of environmental issues in the decision-making process is directly associated with the establishment of clear environmental targets, so environmental issues are given weight because there are targets related to them (ODAb, 00:40:30). This interviewee explained that environmental issues are weighted *'because we [ODA] made them [targets] public and we are measured against them. Because we publish these documents and because we have the Commission for a Sustainable London 2012 coming to audit us and they publish their findings, so we want to achieve the objectives we set out. So it has absolutely weight, it is an obligation. Because we set very clear targets, they have absolutely weight'*

(ODAb, 00:40:30). Alternatively, a research participant, a member of the Commission for a Sustainable London 2012, observed: *'the big targets are all there [...]. I think environment is quite high in the decision-making where there are targets relating to it, but not in every body'* (CSL, 00:26:47).

Moreover, it should be noted that the influence of environmental issues in the decision-making process in general has grown in recent years, especially because of the debate on climate change and the low carbon economy, although there is still some trade off between economic and environmental considerations, as analysed by a research participant, a member of the EIA Consultancy team: *'I think that the environmental issues are on the agenda in recent years and I think there is quite a transformation over the last 10 or 15 years in terms of environmental issues are ranked alongside considerations like economic issues, social issues and so on and obviously with the whole debate around climate change and the need to adapt to a low carbon society [...]. There is certainly an amount of balancing and trade off to be done between economic considerations and environment, there are cases where environmental considerations are slightly out of weight, but it is fair to say that environmental considerations are given very serious weight in decision-making'* (EIA Consultancy, 00:22:22).

The interview with a member of the Olympic Park Master Plan project revealed that, in his opinion, the weight of environmental issues is equal in relation to other issues, such as place-making and design, in order to leave a long-term legacy after the Games: *'the wider environment we were creating was as important as the operational aspects of the Games. We couldn't win the job without a successful Park, but for most of us we were much more interested in the long-term legacy and, therefore, issues like environment, place-making, the design of the place were more important. So pretty equal ranking'* (OPMP, 00:04:47).

On the other hand, as highlighted by a member of the Commission for a Sustainable London 2012, the weight of environmental issues in the decision-making process of the Games may vary according to the body considered: *'*

*think depending on each body you are looking at, some are more concerned about cost [...], some are very focused on the diversity and inclusion and for us that's part of sustainability' (CSL, 00:26:47).*

To a research participant, a member of the ODA Planning Committee, the weight of environmental issues in the decision-making is higher now than it would have been sometime ago (ODA PCa, 00:21:51). This interviewee illustrated his point of view by stating that *'it [the weight of environmental issues] is certainly much higher than when I was the Chair of Planning in Hackney six, seven years ago. There was much less and nobody would be asking about the selection of materials then as certainly are being asked now, it has partly to do with the project [London 2012], partly to do with building regulations [...], so it is much higher that I have seen in other places, whether is high enough is another matter [...]' (ODA PCa, 00:21:51).* In terms of the environmental targets set out by the delivery bodies, as mentioned before by other interviewees, this research participant, a member of the ODA Planning Committee, pointed out that they represent a step forward: *'to get to the targets which are high, like 20% of the material was supposed to come by rail, it is not as high as I want to see, but the fact that you have come from nothing to 20 is pretty good and next time maybe you can do more' (ODA PCa, 00:21:51).*

In contrast to the majority of the interviewees, a research participant, a member of the LOCOG, revealed that environmental considerations were *'seen as a box ticking exercise by the council [Greenwich]*. This interviewee explained that the LOCOG prepared the environmental statement and as Greenwich Council was interested in having the Games, it approved the environmental statement easily (LOCOG, 00:29:22). *'The other stakeholders, English Heritage, Environment Agency, said yes so it [EIS] is done and it is good' (LOCOG, 00:29:22).*

Both environmental NGOs interviewed expressed the view that the weight of environmental issues in the decision-making process of the IOC and the Olympic Games themselves is not high enough, although they recognise London 2012 is taking an important step forward in relation to previous Games,

by setting sustainability and environment at the core of the decisions they are making.

A research participant, a member of BioRegional, explained that: *‘from the IOC perspective, when they are looking at upcoming cities, when they are evaluating Chicago or Rio, or Madrid and all the others, environment is one of the criteria and not sustainability and it is not weighted very high, absolutely not. It is a good thing they require each bid city to write a chapter on the environment, but nothing else. The IOC Sport Environment Commission does a report on the bid, they look at them and they have an evaluation, but it is not weighted high at all. It is becoming something, this is a good thing, it becomes something you have to have and if you don’t have it, that stands out. It is funny, but as long as you have it and as long as everyone has it, that’s good, done. No one really looks at it really. Now when it comes to London 2012 sustainability is meant to be a criteria for every decision, it is not weighted as high as it needs to be still, but it is higher than several bids made before. Vancouver was the first to take sustainability seriously from a holistic perspective: inclusion, aboriginal participation, economic opportunities and environmental concerns, it crossed the board. Sydney didn’t have the sustainability concept throughout. London is taking sustainability even in a higher standard, it is progressing, but the problem is what will happen next? Who knows what will happen in Rio? The idea is hopefully it will continue’* (BioRegional, 00:25:03).

A similar opinion was provided by a research participant, a member of WWF, who emphasized the weight of environmental considerations in the decision-making process of the IOC and major sports events *‘is not high enough’*, although London 2012 represents a positive example on how to change this situation: *‘[...] in terms of the IOC criteria, environment is not high up and I think a very significant step forward will be taken in 2012* (WWF, 00:24:23). However, this interviewee observed that the example of London 2012 in terms of placing sustainability at the core of the project may not be followed by other major sports events, which may give a special weight to political and economic issues instead (WWF, 00:24:23). *‘The huge problem is the winter Olympic Games in Sochi in 2014. It looks like being an absolute environmental disaster. My*

*opinion is that there is no way the Games should happen in Sochi, one of the most sensitive habitats in the world. Sochi was chosen because environmental weighting is not prominent and in the end some political issues and issues about economic regeneration are much higher up'* (WWF, 00:24:23).

Table 7.1 below summarises the weight given to environmental considerations in the decision-making process of London 2012 by different institutions and delivery bodies linked to the Games:

Table 7.1: Weight given to environmental considerations in the decision-making process of London 2012.

<b>Delivery Body/ Institution</b>	<b>Weight</b>	<b>Summary</b>
ODA	High	<i>'[...] it has absolutely weight, it is an obligation. Because we set very clear targets, they have absolutely weight'</i> (ODAb, 00:40:30).
ODA Planning Decisions Team	High	<i>'It is absolutely embedded in everything that the ODA design team is doing, it is one of the core principles of the ODA, so absolutely, I think it runs through out everything [...]'</i> (ODA PDT, 00:11:11).
DCMS	High	<i>'[...] we [DCMS] have, without being remotely cynical about it, tried to put this at the very key, the very core of the entire decision-making process and they [ODA] have been doing that on absolutely everything'</i> (DCMS, 00:16:35).
EIA Consultancy Team	High	<i>'I think it is fair to say that environmental issues in terms of decision making on development and construction projects in the UK are very much at the top of the agenda'</i> (EIA Consultancy, 00:22:22).
Olympic Park Master Plan Team	Equal to other issues	<i>'[...] we were much more interested in the long-term legacy and, therefore, issues like environment, place-making, the design of the place were more important. So pretty equal ranking'</i> (OPMP, 00:04:47).
CSL	It depends on the body	<i>'I think depending on each body you are looking at, some are more concerned about cost [...], some are very focused on the diversity and inclusion [...]'</i> (CSL, 00:26:47).
ODA Planning Committee	Higher now than it would be sometime ago	<i>'It [weight of environmental issues] is certainly much higher than when I was the Chair of Planning in Hackney six, seven years ago'</i> (ODA PCa, 00:21:51).
BioRegional	Not high enough	<i>'[...] when it comes to London 2012 sustainability is meant to be a criteria for every decision, it is not weighted as high as it needs to be still, but it is higher than several bids made before'</i> (BioRegional, 00:25:03).
WWF	Not high enough	<i>'[...] I think in terms of the IOC criteria, environment is not high up and I think a very significant step forward will be taken in 2012'</i> (WWF, 00:24:23).
LOCOG	Low	<i>'[environmental issues were] seen as a box ticking exercise by the council [Greenwich]'</i> (LOCOG, 00:29:22).

Source: The author, 2010.

### 7.3.3 Public consultation

As discussed in chapters 2 and 5 (sections 2.3 and 5.3), public participation is a key element of the EIA process (Weston, 1997; Hartley and Wood, 2005). In terms of major sports events and related infrastructure, it is a valuable opportunity for the public and key stakeholders to show their views, learn more about the project and engage with the event.

A research participant, a member of the Olympic Park Master Plan project explained that the process of undertaking the public consultation for the Olympic Park was intense because there were different stages of consultation in the application process (OPMP, 00:31:55). According to this interviewee, a whole series of sessions were conducted with different audiences, such as different faith groups; women from different faith groups; the elderly; children; gangs; artists; business; shop keepers; etc (OPMP, 00:31:55). The intention was to reach the diversity of groups and sub-groups in the communities where the Games take place: *'you can look at people as a community; you can look at the community as different communities in that and so on'* (OPMP, 00:31:55). At the end of the planning application process, the Master Plan team of the Olympic Park produced a consultation report, detailing how the public was consulted, who the team spoke to and the general issues raised by the public (OPMP, 00:31:55).

On a project of the scale of the Olympic Games, it is important to highlight that there are several stakeholders such as statutory bodies, local authorities, local interest groups, and pressure groups, among others to be consulted and engaged in the planning process. As observed by a research participant, a member of the EIA Consultancy: *'it was a real challenge to undertake that and to give people the opportunity to comment on the design as it evolved, on the EIA as it evolved'* (EIA Consultancy, 00:09:03).

Although the public consultation was a challenging and intense process, as suggested by research participants, it seems that the results were positive, as reflected by one interviewee, a member of the Olympic Park Master Plan Team:

*'it was a positive, valuable process for the design of this piece of London and for the community to understand the potential of the Olympics in terms of jobs, quality of life, and this came out of the consultation'* (OPMP, 00:31:35). To a research participant, a member of the ODA Planning Committee, the public consultation *'has done quite well so there are few issues for people to get cross about'* (ODA PCa, 00:17:05). Additionally, another interviewee, a member of the EIA Consultancy Team stated that *'it is fair to say that on the Olympics the consultation has been done very well, a lot of good strategy mechanisms were put in place to make sure the consultation was undertaken early and everybody wants to have an opportunity to have a say and I think we reflected that in the EIA as well'* (EIA Consultancy, 00:09:03).

Despite the positive comments on the way the public consultation has been carried out for London 2012, the interviewees also pointed out some issues which, in their opinion, represent limitations. These issues are summarized in table 7.2 below:

Table 7.2: Problems regarding public consultation gathered from the interviews (England).

Problem	Summary
The basic statutory requirements for public consultation in the EIA are limited	<i>'The basic statutory requirements for EIA are very limited. Planning consultation can get away just doing site notes and newspaper notices, some letters to residents [...]'</i> (ODA PDT, 00:33:43).
Public consultation is excessively formal and tends to be limited to large scale exercises  It is much more a communication exercise rather than an opportunity to engage people	<i>'Generally in this country, it can be excessively formal and it tends to be limited to large scale exercises. It is much more seen as a communication exercise. Public consultation should be an opportunity to engage, to learn, to have two way feedback'</i> (OPLC, 01:00:14).
It is seen as a requirement, not as a positive opportunity to improve the project	<i>'Public consultation shouldn't be seen as a juridical requirement, I have to involve people because the law says, I have to involve people because good practice says, I have to involve people, but involve people because ultimately it is going to make a better plan'</i> (OPLC, 01:03:20).
It does not communicate effectively how the opinions are taken on board  It does not communicate what is delivered	<i>'Public consultation is also how you communicate effectively that you took those opinions on board and I think that's also important because lots of times in consultations you can take, take and take and you don't actually communicate what has been delivered'</i> (ODA CR, 00:14:19).
Lack of people's participation	<i>'The day to day relationships with the local communities in Hackney, Stratford, actually they are not very good at coming to meetings or really responding to a consultation, it is a bit too far away, it is not like next door, so there are many fewer engaged people'</i> (ODA PCa, 00:17:07).
Presence of 'professional objectors' as consultees	<i>'If you just do the traditional types of consultation the problem is it brings out only the professional objectors. There are people that just do this'</i> (OPLC, 01:05:07).

Source: The author, 2011.

Although the list of issues may seem long, it should be noted that the problems described above are interconnected as they are related to lack of engagement, lack of guidance and an excess of formality. As suggested by a research participant, a member of the ODA Planning Decisions Team, *'it is something part of rewriting the regulations or rewriting the guidance, maybe it affects more the public participation'* (ODA PDT, 00:33:43). Perhaps by providing some extra guidance on public consultation towards a more engaging process, establishing how the opinions are taken into consideration and communicating what is delivered, it is possible to improve the process, making people feel part of it and willing to participate. A more engaging process could also give the opportunity to other 'publics' rather than the 'professional objectors' to participate. *'So one of the reasons we have to have a more creative engagement and consultation process is because you need a more balanced view of this multitude of publics, because the public is not one thing, it is a multitude of diverse opinions. This creative process could help getting these opinions'* (OPLC, 01:05:07).

These issues are re-examined and discussed in more detail in chapter 8 (section 8.3.6).

### **7.3.3.1 Written and verbal representations**

As important as carrying out a public consultation is to take into account the opinions given regarding environmental issues in the decision-making process. Regarding this issue, the majority of research participants stated that the feedback from consultees is taken into consideration in the decision-making process of the Games. As explained by a member of the ODA Planning Decisions Team: *'in our planning committee report, we have to log the consultation responses, we have to say how we will be dealing with situations. So we need to be able to say there are legit planning comments and this is how we are going to deal with them. Everybody's comments should be considered and should have some sort of response and should be able to be dealt with clearly through the reporting process'* (ODA PDT, 00:41:46).



A research participant, a member of the LOCOG, observed that *'before putting a planning application in we consulted stakeholders and the public on the planning application and we tried to take the opinions on board'* (LOCOG, 00:32:23). Similarly, another interviewee, a member of the ODA Community Relations, described that *'when you are sitting in a residents meeting and you are asking people about what their thoughts are with regards to something, you are taking people's opinions, even if you got 30 or 40 people, we take those opinions on board'* (ODA CR, 00:14:19). Although the majority of interviewees' comments seem to point to the consideration of the consultee's opinions in the planning process, it should be mentioned that a research participant, a member of BioRegional, revealed a different opinion: *'[the Olympic Park] had an extensive public consultation, but no idea how it was taken into consideration'* (BioRegional, 00:23:14).

#### **7.3.3.2 Do written and verbal representations change projects?**

According to the interviews conducted, it is possible to say that the feedback from public consultation changed projects to some degree. Moreover, based on the interviews, it seems London 2012 appreciate what the public has to say regarding the event, recognising and valuing their knowledge on the area where the Olympic Park is being built. As observed by a research participant, a member of the LOCOG, the public consultation *'has changed plans as well because they [the public] know local information we don't know, they have good ideas as well, so they can change the plans'* (LOCOG, 00:32:23). Similarly, another interviewee, a member of the Olympic Master Plan Team, outlined that *'the public consultation changed the schemes because people living in this area know far more'* (OPMP, 00:41:50).

Also in line with the comments above, one interviewee, a member of the EIA Consultancy, explained that *'it is right to say that the projects did change in response to the feedback from the consultation and changes were made'*, (EIA Consultancy, 00:14:42). This research participant also explained how the feedback from consultees influenced the EIA process, which resulted in changes in the design of projects, by outlining that after the planning application

has been submitted and all the documents been reviewed, the planning authority received several comments from the consultation (EIA Consultancy, 00:14:42). Because of this, the EIA Consultancy undertook another series of revisions to EISs in response to a Regulation 19 request made by the planning authorities, who identified a number of issues that needed further work as a result of the feedback of consultees, and carried out changes in the design of the projects (EIA Consultancy, 00:14:42).

In terms of more specific examples regarding how projects changed due to public consultation, *'it is fair to say that the design and layout of the velodrome and cycling facilities did change*, stated a research participant, a member of the EIA Consultancy' (EIA Consultancy, 00:14:42). This interviewee explained that one possible reason for those projects having changed is related to a strong challenge from the consultees (EIA Consultancy, 00:14:42). Apparently, there was a well-organised cycling lobby that wanted to ensure that the cycling facilities that existed at the site before would be replicated and improved (EIA Consultancy, 00:14:42). So the lobby made strong representations to the project and consequently: *'[...] the design of that scheme did change to take on board the comments as far as possible'* (EIA Consultancy, 00:14:42).

#### **7.3.4 Legacy of the Games**

As stated in chapter 6 (section 6.3.7), the issue of legacy was not thought to be part of this research originally. However, it was during the fieldwork that this issue was raised by interviewees as an important element of the planning process of major sports events. Therefore, due to the importance placed by research participants on this issue, the legacy of the Games is presented in this section, considering the following aspects: physical sport legacy and urban regeneration, both themes derived from the interviews.

According to research participants, the legacy of London 2012 is perceived positively. Comments such as the Games *'will be a phenomenal asset in terms of legacy'* (ODA CR, 00:15:30) or London 2012 is a *'tremendous legacy for London and for the whole country, particularly for East London'* (EIA

Consultancy, 00:00:01) and *'I am very positive about the legacy of the project'* (EIA Consultancy, 00:00:01) were repeated by interviewees in each interview conducted.

Concerning the physical and sport legacy, the interviews suggest that there is a long-term use commitment for the facilities which are being built. So, apparently, there is a clear concern strictly in terms of building venues that will have a long-term post-Games use, avoiding the creation of 'white elephants', which seems to happen frequently in the context of the Olympic Games, as observed by a research participant, a member of WWF: *'I think the record for the Olympic Games on legacy has not been good and there are lots of white elephants. Athens is probably the most often quoted of recent times; Barcelona is sometimes pointed out as a better example and Sydney as well. It seems lots of the venues that were built for Beijing are now struggling to find any purpose post Olympics'* (WWF, 00:03:06). Additionally, one interviewee, a member of the ODA, explained that *'some Olympics did not get that right, but we try to focus on the long-term legacy development as part of the Olympic Plan, so you don't end up with white elephants'* (ODAb, 00:28:00).

The Central Government is also paying attention to this issue, monitoring closely the work carried out by the delivery bodies to ensure there is a long-term legacy left after the Games, as highlighted by a research participant, a member of DCMS: *'we have a role in ensuring the Park itself, that what we build for the Games has a legacy, so we are not creating white elephants'* (DCMS, 00:02:35). Moreover, it should be noted that there appears to be a tendency from the IOC to make sure 'white elephants' are not left after the Olympic Games, which would damage the IOC image: *'I think the IOC is now very sensitive particularly on issues like white elephants, it damages the IOC brand, they are very keen that that doesn't happen. I think they are very keen on legacy'* (WWF, 00:29:34). As a practical solution for the problem of 'white elephants', the use of temporary venues could be suggested. Hence whatever venues are not necessary after the Games should be designed to be temporary, as observed by one interviewee, a member of the ODA: *'where any venue does not have a defined*

use, it is designed to be temporary' (ODAb, 00:28:00). At London 2012 there are 31 venues, of which 25% are temporary (London 2012, 2010).

Moving to the topic of regeneration, the interviews suggest that the main reason why London is hosting the Olympic Games is because the Games will provide a long-term sustainable legacy, whose benefits will be shared not only by London but also by the country as a whole. As observed by a research participant, a member of the Olympic Park Master Plan project, there are two projects in the context of the Games: *'the Olympic project and there is the city project. The city project is far more important than the Olympic project. [...] at the end of the day, for the city, if it doesn't have a very clear idea about what this place needs to be like, five years after the games, ten years after the games, then they will have problems. Athens didn't think it through, Montreal didn't think it through. Even Sydney didn't think it through very well. Barcelona got it very right and I am hoping London will be a similar story'* (OPMP, 00:08:03).

Sustainability and legacy were important aspects of the London bid which is confirmed by their consideration in the planning process since an early stage. As observed by one interviewee, a member of the ODA: *'I think the other part of sustainability is building the legacy at the beginning and thinking about the long-term use'* (ODAb, 00:28:00). A similar comment was provided by a research participant, a member of WWF: *'I think generally London understood this [legacy] and worked to this right from the beginning, so if you talk to people in the ODA, they say they are building for the legacy and they just happen to be hosting a mega event for six weeks. Everything they do, everything they build, it is about legacy'* (WWF, 00:03:06).

Specifically regarding urban regeneration, the interviews suggest that one of the intentions underpinning London 2012 is to regenerate East London, which represents one of the most deprived areas in London and in the UK as a whole. For this reason, the Games are *'being designed as a long-term investment in East London'*, as described by one interviewee, a member of the ODA (ODAb, 00:08:34). In addition, according to a research participant, a member of BioRegional, one of the reasons why this organisation decided to get involved

with London 2012 was because BioRegional *'wanted to see the regeneration of East London happen very sustainably'*. (BioRegional, 00:33:28). As a result of the regeneration of that area of London, several benefits can be provided for the surrounding communities in terms of public open spaces, sport facilities for local people and athletes, job opportunities, professional qualifications for local people, homes, environmental improvements (such decontamination of land), improving the quality of life in that area (Olympic Park Legacy Company, 2011b).

Another relevant issue regarding legacy that emerged from the interviews and was identified by interviewees as an important achievement was the establishment of a specific organisation, the Olympic Park Legacy Company (OPLC), to plan, develop and manage the Olympic Park and to ensure a long-term legacy after the Games (Olympic Park Legacy Company, 2011a). As observed by one interviewee, a member of the ODA Community Relations, *'what is valuable is that there is a separate company that will think about that, it is not ODA, LOCOG, that's a completely separate company and that's the best move that could be possibly made, because that's all their focus is gonna be'* (ODA CR, 00:15:30). Regarding the company, it was explained by one interviewee, a member of the Olympic Park Legacy Company, that the idea behind setting up a legacy company was quite simple: *'the concept of legacy was so important that you have to have an organisation that was totally dedicated to [...] make a success of this place [Olympic Park] and integrate it with the surrounding communities'* (OPLC, 00:00:31).

Planning the legacy is also necessary from the perspective of the planning system. As explained by a research participant, a member of the Olympic Park Legacy Company, the planning system would be interested in the long-term impacts of the development created to accommodate a major sports event (OPLC, 00:22:32). Questions such as *'what are your plans for 2012 to 2040? How is the infrastructure going to be used afterwards?'* should be answered *'because they [planning authorities] are not going to give you planning permission unless you answer those questions, because the planning system in this country [England] doesn't want any part in creating assets and creating environmental impacts that have no long term benefits'* (OPLC, 00:22:32).

To conclude this section, there was only one interviewee that perceived the legacy of London 2012 differently, although this research participant stated that the legacy *'will be alright'* (ODA PCa, 00:35:40). According to this interviewee's opinion, there are investments being made in other aspects of the Olympic Park which are not a priority when compared to infrastructure issues: *'in legacy terms it would make more sense to spend a lot of more money on the real infrastructure and less on the fancy stuff. Maybe the Park could be a bit simpler and the money could have gone on really linking things up to make a better piece of city'* (ODA PCa, 00:35:40).

## 7.4 Conclusions

This chapter has explored the English case study by presenting and discussing the data collected from the interviews conducted with key stakeholders involved with London 2012. The relationship between delivery bodies, governments (central and local) and key stakeholders in the context of London 2012 seems to be positive as there are clear lines of communication, mechanisms in place to reconcile conflicting interests and a clear understanding in terms of their roles in the process (see section 7.3.1).

Time appears not be an issue as 'preparations for the London 2012 Games are on track and construction on all the new main venues and infrastructure in the Olympic Park is well underway' (London 2012, 2011e, n.p). Following this perspective, EIA was undertaken accordingly to specific regulations, respecting the required legal steps (see section 7.2.1). The implementation and enforcement of EIA regulations and decisions were also followed in accordance with the regulations (see section 7.2.1). Public consultation carried out for the EIA of the Olympic Park Master Plan was reasonably effective and the opinions gathered were taken into consideration, and were responsible for changing and shaping some projects that make up the Games infrastructure (see sections 7.3.3.1 and 7.3.3.2). Moreover, EIA recommendations also changed projects in the scope of the London Games in terms of position and scale of buildings (see section 7.2.1). For this reason, it can be seen that there is evidence that EIA properly informed the planning process as a whole for London 2012.

In addition, according to the key research findings discussed here in this chapter, London 2012 placed sustainability and long-term legacy at the core of the entire Olympic project (see section 7.3.4). Within this context, the Games engaged with environmental NGOs (BioRegional and WWF) at early stages of the planning process in order to incorporate their environmental advice (see section 7.3.1). Moreover, London 2012 has set up an independent assurance body called the Commission for a Sustainable London 2012 responsible for ensuring the Games meet their sustainability commitments (see section 7.3.1). As legacy is a key element of the planning process of the Games, an Olympic Park Legacy Company has been set up with the purpose of planning and administrating the long-term legacy of London 2012 (see section 7.3.4). Besides, the choice of placing the Games in East London represents a unique opportunity to foster urban regeneration as that area is deprived and in need of renewal.

As a result of the examination of the London 2012 key findings, a diagram was drawn summarizing the central issues, which is presented below. The structure of this diagram also follows the structure of the diagram used to illustrate the relationships between the key findings from the Rio 2007 Pan American Games in chapter 6 (see section 6.4).

Figure 7.1 below summarizes the key findings regarding London 2012.

The next chapter provides a comparative analysis between the research findings from both case studies, London 2012 and Rio 2007, in the light of the theoretical framework developed in chapter 2.

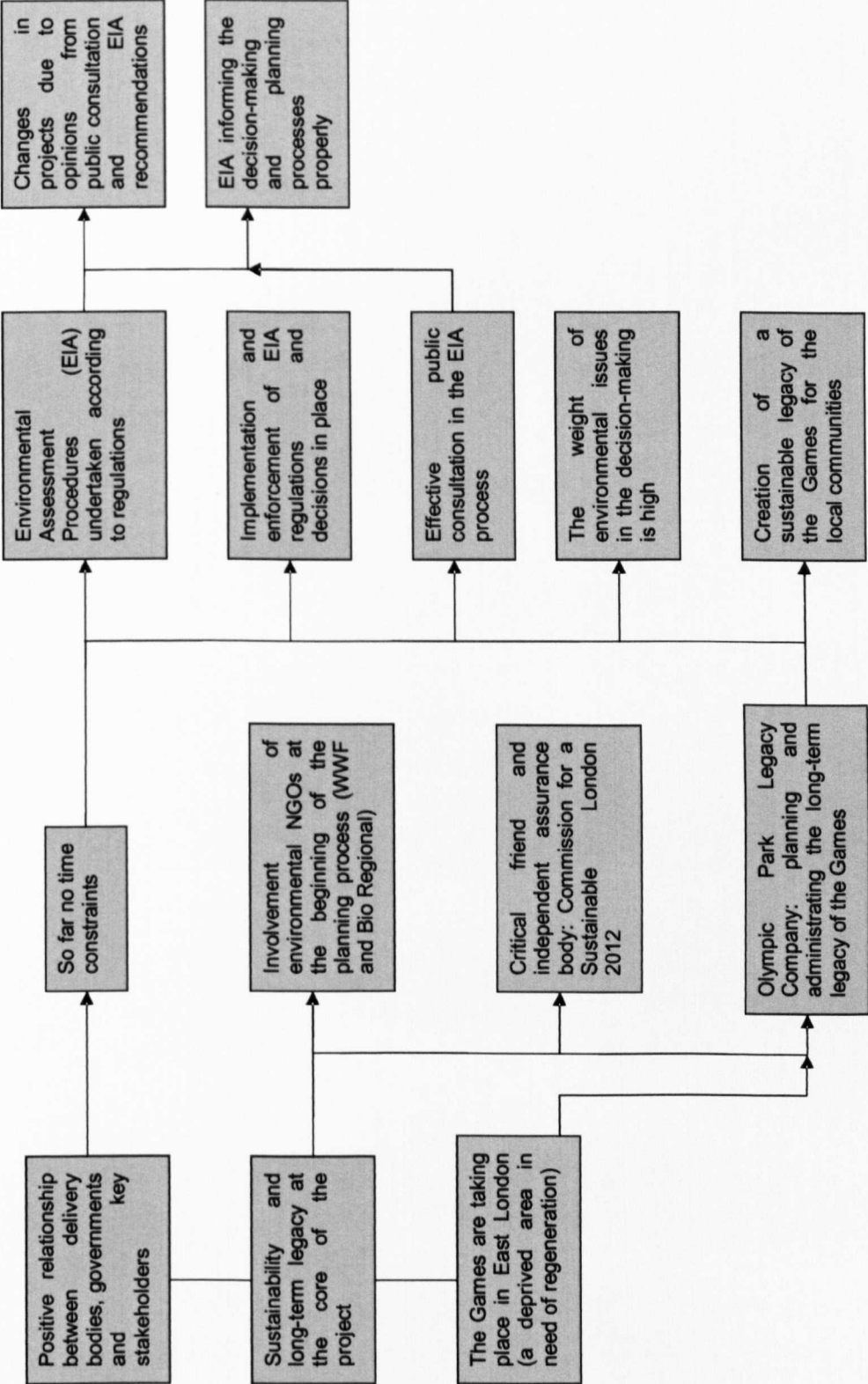


Fig. 7.1: Key findings regarding London 2012.  
Source: The author, 2011.



## **8 COMPARING AND CONTRASTING THE RIO 2007 PAN AMERICAN GAMES AND THE LONDON 2012 OLYMPIC GAMES IN THE LIGHT OF THE THEORETICAL FRAMEWORK**

### **8.1 Introduction**

This chapter provides a comparative analysis between the findings of the Rio 2007 Pan American Games and the London 2012 Olympic Games against the theoretical framework developed in chapter 2. In chapters 6 and 7, the findings of the Brazilian and English case studies were examined individually. Based on the findings from those chapters (6 and 7), two conceptual models for each case study have been drawn with the purpose of guiding the discussion of the research findings along with the theoretical framework developed in chapter 2 (see section 2.4 for categories and sub-categories of the analytical framework which were also utilised in the conceptual models for each case study). The conceptual models are presented below (see figures 8.1 and 8.2). The structure chosen to lead the discussion of the findings in the present chapter follows a similar pattern adopted to present the findings in chapters 6 and 7. Within this, the chapter starts by discussing themes related to environmental impact assessment then moving on to the decision-making process.

Figures 8.1 and 8.2 present the conceptual models of the Brazilian and English case studies. The discussion that explains the themes within the figures is provided in the following sections.

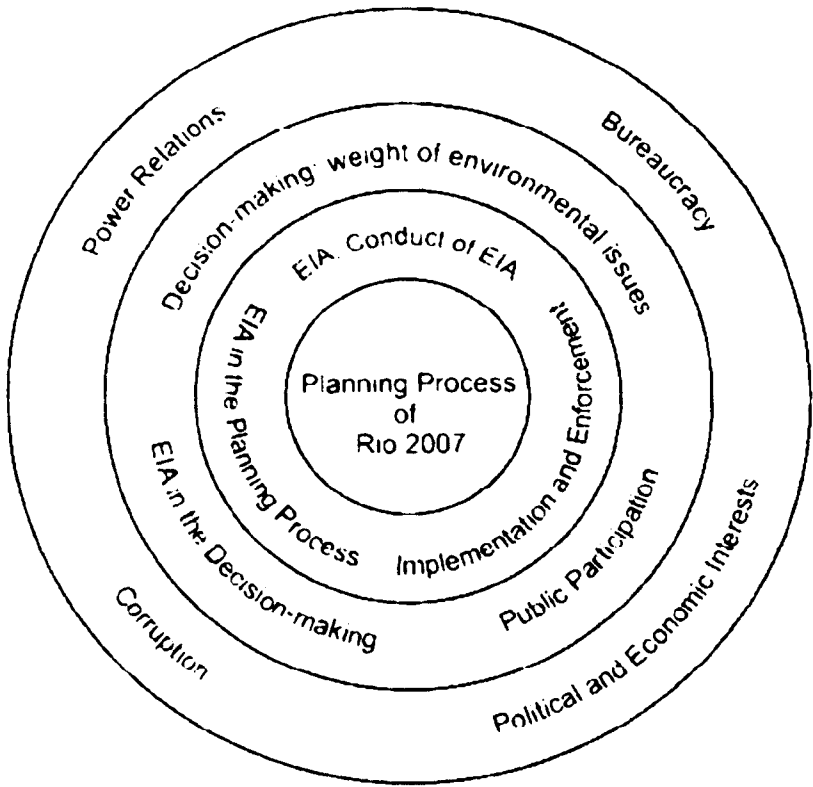


Fig. 8.1: Conceptual model of the Brazilian case study.  
Source: The author, 2011.

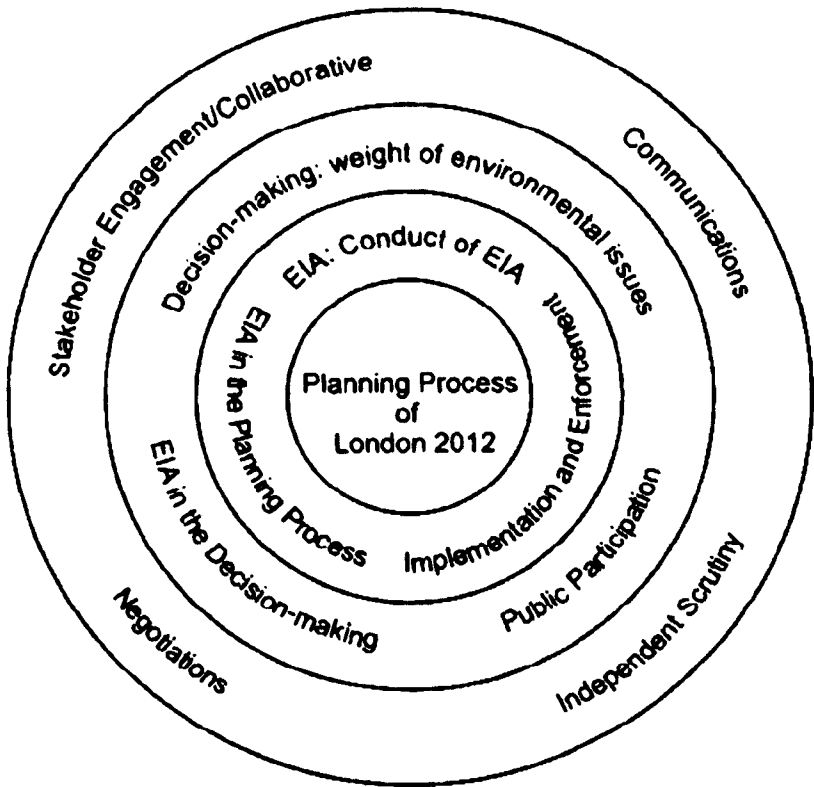


Fig. 8.2: Conceptual model of the English case study.  
Source: The author, 2011.

## **8.2 Environmental Impact Assessment**

### **8.2.1 Conduct of Environmental Impact Assessment (EIA) and environmental licensing**

By checking the research findings against the framework developed in chapter 2, it is possible to set the results of this study within a broader theoretical context. With regard to the environmental licensing system in Brazil, the decentralisation of the system from the state to the municipality of Rio de Janeiro represents an important action to improve and strengthen the system by allowing municipalities to also carry out environmental licensing. As discussed in chapter 4 (sections 4.3 and 4.4), this is also in line with the current agenda of the Federal Government in Brazil which seeks to empower municipalities to deal locally with urban planning and environmental issues through the key federal and municipal planning documents (City Statute and Master Plan).

However, as the present research shows, EIA is still conducted only at the state level in Rio de Janeiro, indicating that municipality empowerment still has some way to go before it can be considered as fully effective. Nevertheless, this is a positive step towards such an aim. Referring back to the finding in terms of EIA being largely concentrated at the state level, this is in agreement with the study by Glasson and Salvador (2000) who identified such centralisation as one of the problems related to the EIA procedure in the country since it limits local environmental awareness and participation of local stakeholders in the process.

Chapters 5 and 6 (sections 5.3 and 6.2.1) have outlined that sports stadiums or sport related infrastructure projects are not developments subject to environmental licensing and EIA in Brazil, as they are not part of the official lists set out by resolutions CONAMA 001/86 and 237/97, a situation which differs from England, where sports stadiums are explicitly listed under Annex 2, part 10(b) of the EIA Directive 85/337. However, here it should be noted that the UK made some minor additions which were not originally required by the European Directive, such as the clarification that sports stadiums are also part of urban development projects (Wood, 2000).

In terms of Brazil, the conduct of environmental licensing and EIA might have been limited in the context of the Pan American Games because the pertinent regulations do not stipulate major sports events and associated infrastructure as developments under such procedures. The fact that sport infrastructure projects are not covered under the environmental licensing system represents a limitation not only for major sports events, which could benefit from the input of these procedures, but also for the environmental licensing system and for urban planning itself. As presented in chapter 4 (section 4.4), the most important planning document at the local level in Rio de Janeiro is the Master Plan, whose new version has been recently approved in 2011 (see chapter 6, section 6.2.2). Despite its clear links with the environmental licensing and EIA processes, there are not specific provisions regarding major infrastructure projects for sport events. This finding is important especially because the city of Rio de Janeiro will host the Football World Cup in 2014 and the Summer Olympic Games in 2016.

In terms of environmental licensing, the inclusion of major sports events and related infrastructure as developments subject to environmental licensing and EIA would facilitate both processes, particularly the screening stage, which has been characterised by discretionary decisions made by competent environmental authorities, similarly to the formal procedure that takes places in England (Wood, 2008). Chapter 5 (section 5.2) provides a basis for considering the steps of the EIA process (including screening) and chapter 6 (section 6.2.1) offers an overview of the screening process for the Pan American Village and other projects as well as the diversity of opinions on whether or not they needed environmental licensing and EIA, largely based on the criteria of urban development and area occupied. So the key argument here is that by making such developments officially part of the environmental licensing process it could save time and reduce the uncertainty about the carrying out of this procedure.

### **8.2.2 Environmental Impact Assessment (EIA) in the planning process and related major problems**

Caldwell (1988, p. 83), NEPA's creator, states that 'it should not be forgotten

that EIA is more than a technical process'. Following this perspective, Chapter 2 (section 2.2) has outlined that there are two branches of EIA theory: procedural and substantive theories. Regarding substantive theories, EIA is considered to be an element of social learning within the agenda of sustainable development (see chapter 2, section 2.2). However, a research finding presented in chapter 7 (section 7.2.2) reveals that the long length of the EIA documentation (ES) was identified as a problem in EIA practice (confirming the influence of the procedural dimension), despite the recommendations in the EIA literature for concise reports written in an accessible language (Cashmore *et al.*, 2004; Wood, Glasson and Becker, 2006).

Glasson *et al.* (1997) indicate that low objectivity and complex technical content are regarded as characteristics of poor quality ESs. The analysis of the EIA and ES for the Pan American Village and for the Master Plan of London 2012 shows that the former consists of five volumes of documentation (four volumes for the EIA process and 1 volume for the ES, totalizing 1041 pages of documents); and the latter encompasses 18 volumes of documentation. The analysis particularly of the Pan American Village ES, a single project which produced 377 pages, confirmed the long length, complexity and the large amount of technical information throughout the document, which compromises the quality of the ES. This finding is not in accordance with the literature on best EIA practices, as 'EIA is not intended to produce an exhaustive, encyclopaedic assessment of each and every potential impact' (Wood, Glasson and Becker, 2006, p. 222). Furthermore the analysis revealed that the Brazilian document is presented in the form of a resume of the issues presented in the previous chapters of the EIA process, which goes against best ES practice that sets out that ES 'is not a resume of the EIA process' (TCU, 2007, p. 34). In addition, this ES in particular is not followed by a non-technical summary, which is not a legal requirement of the EIA regulation in Brazil, although the State EIA regulation in Rio de Janeiro postulates that the ES should be written objectively and in plain language (State of Rio de Janeiro, 1988), which reinforces the importance of focused documentation (Cashmore *et al.*, 2004).

This research finding regarding the long length and complexity of technical information of the EIA documentation can be related to the substantive purpose of EIA as a vehicle to promote social learning as mentioned above. For Weston (2010, p. 368) the environmental statement as a tool for social learning is 'particularly weak'. In his view, this is a result of the possibility of those statements being likely to be read only by those who have an interest in the project and whose perceptions are unlikely to change because of the information provided by the ESs (Weston, 2010).

Therefore, the environmental statement requires changes in order to be fully considered a social learning tool, especially in terms of fulfilling its purpose to reach the greater public, as the ES is probably the only palpable result of the EIA process that the majority of the public has access to. The findings of this research, both from the interviews and from the document analysis, support this argument by demonstrating that the ES needs to improve in order to be considered a social learning tool. They are also in line with Weston's findings (2004, p. 321), which indicate that there seems to be a tendency for EIAs to 'become over-technical and the public becomes overwhelmed by the size and complexity of the information provided'.

As discussed in chapters 6 and 7 (sections 6.2.1 and 7.2.2), a common problem that emerged from both English and Brazilian contexts is related to a possible fear of legal challenge by third parties regarding the EIA decisions. For London 2012, the EIA consultancy had an intensive period of work to ensure that the EIA would be sufficiently robust to stand critical scrutiny by other parties. In Brazil, a similar fear was expressed regarding the EIA of the Pan American Village, since the developers were afraid of facing problems concerning this issue. The fear of legal challenge regarding EIA decisions is assumed to be as one of the reasons for the production of extensive EIA reports. For Cashmore *et al.* (2004) this might be partially a consequence of NEPA and their massive EIA reports prepared in the USA to cope with litigation issues. In England, the fear of legal challenge may be associated with the legalistic culture of the planning system, which has been developed and shaped by court rulings that result from legal challenges to planning decisions (Weston, 2006).

Chapters 6 and 7 (sections 6.2.3 and 7.2.2) have examined three related findings which may represent the perception of EIA by some practitioners. Firstly, in England, EIA and other assessment tools are perceived in general as a 'tick box exercise' (see chapter 7, section 7.2.2). It was felt from the interviews that EIA is a procedure that must be undertaken as there is no other alternative, so it is done uniformly and the 'box is ticked' for these procedures satisfying an item of the planning process. In Brazil, although such 'tick box exercise' perception has not been manifested by research participants, the environmental licensing and environmental assessment procedures are still seen as obstacles and legal impositions (see chapter 6, section 6.2.3). In addition, in both countries EIA is sometimes seen as a *post hoc* rationalization for something that has already been decided (see chapters 6 and 7, sections 6.2.3 and 7.2.2).

Therefore, according to these views, EIA is broadly seen as: a) 'tick box exercise'; b) 'obstacle and legal imposition'; and c) '*post-hoc* rationalization for something that has already been decided'. There is some evidence in the EIA literature that supports these findings. For instance, some authors argue that EIA is frequently reduced to a 'legalist procedure' (Weston, 2003, p. 278), a 'mere formality' (Bartlett and Kurian, 1999, p. 418) and a 'one time activity to fulfil legal obligations' (Brookes and Miller, 2003, p. 269). Here it is worth highlighting that Caldwell, in one of his publications in 1988, hoped that in the long term EIA would be more strongly integrated into the planning and decision-making processes instead of being a 'check upon them' (Caldwell, 1988, p. 82). More than two decades have passed since then and the 'check list exercise' perception is still being acknowledged.

Such views as those mentioned above need to be examined in the light of procedural theories of EIA, which focus primarily on the procedural requirements of the process and in the role of EIA in project decision-making process (see chapter 2, section 2.2). Probably because of the strong influence of the rationalist model on the concept of EIA as well as the highly legalistic character of NEPA in the early stages of EIA (whose effects still influence EIA theory and practice today) these views of EIA as a legal procedure to be followed are confirmed by both the literature and empirical evidence from this

study. Weston (2006, p. 13) indicates that EIA in England has become a 'procedure to be followed rather than the proactive environmental management tool' that it has the potential to be. This is in line with the EIA research agenda discussed in chapter 2 (section 2.2), which is still largely focused on the procedural elements of EIA rather than on its substantive outcomes.

Another research finding discussed in chapter 7 (section 7.2.2) is related to the limited number of experts on EIA working for planning authorities. Although the English case study has employed special consultants in order to deal with EIA and sustainability issues, this may not reflect the situation faced by planning authorities. Availability and expertise of personnel have been pointed out by Cashmore *et al.* (2004) as a more significant way to enhance the substantive contribution of EIA to decision-making rather than, for instance, focusing only on reducing the length or complexity of environmental statements which has been previously discussed in this section.

To finalise this section, the procedural dimension of EIA is taken into consideration once more in order to examine the issue of mitigation. By comparing England and Brazil in terms of the way this issue is dealt with, it is important to stress that the Brazilian EIA regulation (Resolution CONAMA 001/86) sets out mitigation measures as a mandatory component of the EIA process (see chapter 5, section 5.3), while in England mitigation measures are still not a legal requirement of the EIA process (see chapter 7, section 7.2.2). Although the mitigation requirement represents a positive aspect of the Brazilian EIA regulation, it should be stressed that resolution CONAMA 001/86 is somewhat discretionary regarding the typologies of projects subject to EIA. As discussed in chapters 5 and 6 (sections 5.3 and 6.2.1), the environmental licensing regulation (Resolution CONAMA 237/97) sets out a list of developments under this process; however, the need to undertake EIA is determined by the competent environmental authorities by assessing the impacts of such developments.

The research findings suggest that the fact mitigation is not a mandatory procedure in the EIA process in England represents a major problem,



particularly considering that the main areas of influence of EIA are on design and mitigation measures, as explained in detail in section 8.3.3. A study conducted by Tinker *et al.* (2005) demonstrated that approximately half of the mitigation measures proposed in the ESs examined (40 applications in total) were not translated into planning conditions or obligations. The research findings and the literature suggest that EIA may play a minor role in the decision-making in terms of establishing planning conditions and mitigation measures (Weston, 2004; Cashmore *et al.*, 2004; Sadler, 1996). Such a minor role may be even more limited than supposed if the mitigation measures set out by the ESs are not in several cases converted into planning conditions as the study by Tinker *et al.* (2005) indicates.

### **8.2.3 Implementation and enforcement of Environmental Impact Assessment (EIA) regulations and decisions**

As previously discussed in chapters 6 and 7 (sections 6.2.4 and 7.2.3), the implementation and enforcement of environmental assessment procedures and decisions seem to be undertaken according to relevant regulations in the context of London 2012 and the Pan American Village. In addition, mitigation measures, monitoring plans and environmental programs set out by the EIA of the Pan American Village were implemented, as explained in chapter 6 (see section 6.2.4). However, the environmental licensing carried out for the new venues needed for the Pan American Games was not implemented properly since it did not follow the regular steps set out by specific regulations, as examined in chapter 6 (see section 6.4). The enforcement particularly of mitigation measures was also compromised in this context (see section 6.4).

The research findings presented in chapter 6 (section 6.2.4) indicate that the enforcement of environmental licensing and EIA may be a sensitive and problematic issue in Brazil. Chapter 6 has also discussed the key problems related to the enforcement process, which can be summarized as follows: a) lack of personnel; b) lack of resources to remunerate enforcement agents and to purchase equipment; c) corruption issues; and d) the continental scale of the country. Some of these findings (except c and d) plus the findings regarding

political influence and economic pressures discussed below in this section support the study by Glasson and Salvador (2000). These authors, by comparing the EIA systems of Brazil and England, concluded that implementation and enforcement are problematic in Brazil partially in response to the issues identified above. It is important to highlight that their study was conducted in 2000, so more than 10 years have passed since then and the present research has confirmed similar problems in terms of implementation and enforcement of environmental licensing and EIA. Here it is also important to keep in mind that some of the problems identified above may reflect governance issues, such as corruption. As discussed in chapter 6 (section 6.2.4), clientelism practices within the government was also pointed out as a difficulty in the enforcement of environmental regulations in Brazil. This is consistent with the clientelism model of governance presented in chapter 2 (section 2.3) that involves using the governance structure for allocating and distributing resources in a hidden way between politicians and government officers (Healey, 2006).

Still referring to Glasson and Salvador's study, they state that 'there is a marked gap between policy and implementation, between EIA procedures and EIA practice' (Glasson and Salvador, 2000, p. 209). The research findings, particularly one related to 'strong environmental legislation *versus* weak practice' confirm the statement above (see chapter 6, section 6.2.4). However, the research findings on the contribution of the Public Ministry to the enforcement of environmental licensing and EIA in Brazil, discussed in chapter 6 (section 6.2.4), which appears to be positive in relation to the Brazilian case study, do not support the World Bank report on the environmental licensing for a hydroelectric project in Brazil, which criticises the role of the Public Ministry by claiming: '[...] the MP [Public Ministry] has not employed its resources to solve problems but has instead come to represent an additional and controversial impediment to the environmental licensing of major developments, especially hydropower plants' (World Bank, 2009, p. 21 cited in Lima and Magrini, 2010, p. 114).

## **8.3 Decision-making Process**

### **8.3.1 Relationship between stakeholders (power relations, political interests, corruption and bureaucracy)**

As previously discussed in chapter 7 (sections 7.3.1 and 7.4), the relationship between key stakeholders seems not to represent a problem for London 2012. However, in the context of the Rio 2007 Pan American Games, this was identified by interviewees as a major problem whose consequences were reflected in different components of the planning process of the Games, such as decision-making, implementation and enforcement of environmental licensing and environmental assessment procedures and legacy issues (see chapter 6, section 6.4). According to the research findings this relationship was compromised due to political divergences which brought serious consequences to the planning process of the Games. In addition to this finding was the perception of the Pan American Games as a project of the municipality of Rio de Janeiro, which would ultimately promote the city rather than the other levels (see chapter 6, section 6.3.1). Furthermore, three other findings are closely linked with the finding regarding the relationship between governments: a) federal, state and municipal governments were the delivery bodies of the Games; b) the effect of time constraints; and c) enactment of a special decree considering the constructions needed for the Games urgency (see chapter 6, sections 6.2.4, 6.3.1, 6.3.2, 6.3.4). The combination of these ingredients largely shaped the way the decision-making process was conducted in the context of the Rio 2007 Pan American Games.

The finding related to the fact that the governments (federal, state and municipal) were the delivery bodies of the Rio 2007 Games along with the Brazilian Olympic Committee differs from London 2012, which has set up the Olympic Delivery Authority (ODA), an independent body funded by the government, responsible for the delivery of the new venues and infrastructure required for London 2012 (see chapter 3, section 3.3.2.1). By establishing such an independent body, the ODA determines their own way of delivering the Games with no direct interference from the government (although ODA still has

to report their progress to the government and to the Commission for a Sustainable London 2012).

Another aspect to be considered in terms of the delivery bodies being governmental is concerned with governance issues. As discussed in chapter 6 (sections 6.2.3, 6.2.4 and 6.4), governance issues such as bureaucracy and corruption were mentioned by research participants as major problems that undermine the implementation and enforcement of the environmental licensing system as well as environmental assessment procedures in Brazil. Therefore, within this context, it could be argued that by having the governments as the delivery bodies it could facilitate the influence of such governance issues on the planning process of the Rio 2007 Pan American Games.

Despite the negative consequences caused by the fact that the delivery bodies were the governments themselves in the context of the Rio 2007 Pan American Games, it is fair to say that this might also have had a positive effect. As discussed in chapter 6 (section 6.2.4), in terms of enforcement, the interviews seem to suggest that the enforcement of environmental licensing and EIA regulations and decisions was reasonable for the Games (although not completely effective), especially considering the enforcement standards in the country. So it could be assumed that this was due to the presence of personnel from the government environment bodies in the organizing structure of the Games.

Although this research was not intended to look at governance issues as one of the main objectives, the research findings presented above suggest the powerful influence of political issues in the decision-making process, reinforcing Healey's perception of planning as a process and a governance activity that takes place in complex and dynamic institutional environments which are defined by a wide range of forces (Healey, 2003) (see chapter 2, section 2.2). Aligned with political issues are the relations of power which are also suggested by the research findings. For instance, the tense relationship between governments in Brazil and the fact that the governments were the delivery bodies confirm a strong political component and reflect power relations, which

are seen by some authors as inevitable as 'there is no escape from power' (Richardson, 2005, p. 344). As discussed in chapter 2 (section 2.2), one of the criticisms of collaborative rationality is its limitation in recognising power relations. The findings, at least from the Brazilian case study, point to the importance of considering such relations more proactively in the planning and decision-making processes in order to minimize the negative influence of power particularly in the cases where the government is closely involved.

Regarding the enactment of a special decree for the Rio 2007 Pan American Games and the fact that it has probably not been well documented, as no written evidence has been found from the document analysis (see chapter 6, section 6.4), does not constitute a collaborative form of planning. On the contrary, it confirms the top-down approach to planning. As observed by Flyvbjerg and Richardson (2002, p. 59), 'communication is part of politics, but much of politics takes place outside communication'. Perhaps politics could be the reason why such action has not been communicated to the public. Here it is worth emphasising that, besides collaborative planning, democracy and institutional frameworks are also important to reduce such conflicts in terms of politics and power relations by ensuring that documents and process are transparent and follow the current laws (Persson, 2006). However, the enactment of the decree and its practical effects on the implementation of the environmental licensing process in the Games do not corroborate the ideal of transparency and legality (in terms of following what the laws set out), which should be fostered by democratic processes (see chapter 6, section 6.4 for discussion on the consequences of the special decree).

### **8.3.2 Weight of environmental issues**

According to Jay *et al.* (2007), the aim of the EIA regulation is to ensure that environmental issues are taken into consideration in the decision-making process. Moreover, Ortolano (1993) indicates that the influence on the weight given to environmental considerations in decision-making represents one of the five major approaches to EIA identified by him (cited in Glasson *et al.*, 1997). Despite this, the research findings discussed in chapters 6 and 7 (sections 6.3.2

and 7.3.2) reveal that while the weight of environmental issues was high for London 2012, it was still low for the Rio 2007 Pan American Games. In addition, in England the findings suggest that environmental issues are more integrated in the approach to the Games than was the case in Brazil, as research participants not only stated they think environmental assessment tools are important in the planning process, but also claimed environmental issues have a high weight in the decision-making process of the London Games (see chapter 7, sections 7.2.2 and 7.3.2).

Table 8.1 below summarizes the weight given to environmental issues in the decision-making process of both Games by delivery bodies and other key stakeholders within London 2012 and Rio 2007 Pan American Games.

Table 8.1: Weight given by delivery bodies and other key stakeholders to environmental issues in the decision-making process of both Games.

London 2012			Rio 2007		
Delivery Body/Stakeholder	Weight	Summary	Delivery Body/Stakeholder	Weight	Summary
ODA	High	'[...] it has absolutely weight, it is an obligation. Because we set very clear targets, they have absolutely weight' (ODAb, 00:40:30).	SERIO	Low	'The environment had some weight in avoiding a couple of things, in changing others, but throughout the process it must have had 25%' (SERIOa, 00:21:50).
ODA Planning Decisions Team	High	'It is absolutely embedded in everything that the ODA design team is doing, it is one of the core principles of the ODA, so absolutely, I think it runs through out everything [...]' (ODA PDT, 00:11:11).	CO-RIO	Low	'It was not something fundamental in the decision-making' (CO-RIOa, 00:48:20).
DCMS	High	'[...] we [DCMS] have, without being remotely cynical about it, tried to put this at the very key, the very core of the entire decision-making process and they [ODA] have been doing that on absolutely everything' (DCMS, 00:16:35).	SERIO	Low	'I think it was low' (SERIOe, 00:42:38).
EIA Consultancy Team	High	'I think it is fair to say that environmental issues in terms of decision making on development and construction projects in the UK are very much at the top of the agenda' (EIA Consultancy, 00:22:22).	SERIO	Low	'I would say it [environmental issues] is with 70%, 80% in people's mind as an important factor, but in the decision-making process, when you have to make decisions, I would say it is with 20%' (SERIOc, 00:32:22).
Olympic Park Master Plan Team	Equal to other issues	'[...] we were much more interested in the long-term legacy and, therefore, issues like environment, place-making, the design of the place were more important. So pretty equal ranking' (OPMP, 00:04:47).	Environmentalism	Low	'What I saw was an absolute and general disinterest for environmental issues in the Pan American Games' (Environmentalism a, 00:00:52).
CSL	It depends on the body	'I think depending on each body you are looking at, some are more concerned about cost [...], some are very focused on the diversity and inclusion [...]' (CSL, 00:26:47).	EIA consultancy	Low	'I think it was very weak' (SERVEC, 00:01:48).
ODA Planning Committee	Higher now than it would be sometime ago	'It [weight of environmental issues] is certainly much higher than when I was the Chair of Planning in Hackney six, seven years ago' (ODA PCa, 00:21:51).	Ernst & Young Brazil	Low	'Speaking about the status quo today, I think environmental issues are still treated as something secondary in the decision-making process' (Ernst & Young Brazil, 00:23:00).
BioRegional	Not high enough	'[...] when it comes to London 2012 sustainability is meant to be a criteria for every decision, it is not weighted as high as it needs to be still, but it is higher than several bids made before (BioRegional, 00:25:03).	Federal Ministry	Low	'The environmental component has no weight. It is put there so we find a way to overcome it, let's sort it out as quickly as possible and spending as few money as possible. Unfortunately. And this is what has to change' (FPM, 00:16:29).
WWF	Not high enough	'[...] I think in terms of the IOC criteria, environment is not high up and I think a very significant step forward will be taken in 2012' (WWF, 00:24:23).			
LOCOG	Low	'[environmental issues were] seen as a box ticking exercise by the council [Greenwich]' (LOCOG, 00:29:22).			

Source: The author, 2010.

By analyzing the content of the table above (8.1), it is possible to notice the differences in terms of perceptions from key stakeholders regarding the weight of environmental issues for London 2012. On one hand, key delivery bodies (such as ODA) and the Central Government (DCMS) perceive the weight of these issues as high (see chapter 7, section 7.3.2). On the other hand, environmental NGOs, such as BioRegional and WWF, believe that these issues should be weighted higher, although both NGOs recognize London 2012 represents a significant positive change in the way environmental issues and sustainability are addressed in the context of major sports events (see chapter 7, section 7.3.2).

It could be argued that an effective procedure to ensure environmental issues are weighted high enough in the decision-making of major sports events is to establish clear environmental targets at the beginning of the planning process and maintain them throughout the process, as London 2012 has done (see chapter 7, section 7.3.2). It is important to bear in mind that although the London Games have placed sustainability at the core of the whole project, it is still likely to experience some failures in meeting their commitments.

Turning the attention to the Rio 2007 Pan American Games, as stated before in this section, the weight of environmental issues was low in the decision-making of the Games. According to research participants, financial resources, political issues and deadlines were weighted higher than environmental considerations (see chapter 6, section 6.3.2). However, this situation seems to be gradually changing in Brazil since environmental considerations become to be perceived as business and funding opportunities.

Similarly, in England, environmental issues are already seen as a business opportunity. In the context of London 2012, sustainability is also linked to financial reasons as the government is investing public money in the preparation of the Games. Therefore environmental issues and economic considerations should be considered as complementary pillars of sustainability. By giving a high weight to environmental issues in the decision-making of major sports events and related infrastructure, it is likely that this will be reflected in



business opportunities, economic gains and consolidation of a positive image for the Games' brand (Olympic Games, Pan American Games, Football World Cup, etc).

As stated above, the findings highlight that financial resources, deadlines and political issues were given a higher weight in the decision-making process of the Rio 2007 Pan American Games (see chapter 6, section 6.3.2). These findings are supported by the literature that suggests that even though decision-makers may take environmental issues into consideration throughout the decision process, in the final decision other issues such as economic and political ones might prevail (Jay *et al.*, 2007; Richardson, 2005; Weston, 2003; Leknes, 2001). This might happen due to the lack of regulation establishing any specific weight to the environmental information provided by the EIA (Jay *et al.* 2007). Within this context, Weston (2010) adds that there is no reference made by either the European EIA Directive or the EIA regulations in the UK that places the importance of environmental issues above others.

Following this, Leknes' study (2001) has shown that EIA is important in the initial and formal stage of the decision-making process by providing information; however, such a role is reduced as political issues increase. This is in line with the research findings discussed in chapter 6 regarding the negative influence of economic considerations and political issues on the implementation and enforcement of the environmental licensing and EIA systems in Brazil. The discussion so far has demonstrated the conflictive nature of EIA, involving power, influence, values and politics, which indicate EIA cannot be seen exclusively as a technical, value-free and apolitical activity according to the rationalist model of decision-making (see chapter 2, section 2.2).

The research findings discussed in chapter 6 (sections 6.3.2 and 6.3.3) indicate that although the weight of environmental issues in the decision-making in the context of the Rio 2007 Pan American Games was low, these issues, including EIA, were regarded as positive in the planning and decision-making processes of major sports events and related infrastructure, confirming the implementation gap suggested by some authors (Alexander, 1997; Wood and Becker, 2005).

These findings are also in line with Glasson (1999, p. 363) for whom 'good intentions do not always become good practice' and suggest that EIA and other environmental assessment tools still have a long way to go in terms of being fully considered planning and decision-making tools. A possible explanation for such a situation is provided by Cashmore *et al.* (2004) who highlight that the modest contribution of EIA to decision-making might be partially a result of the limited understanding of EIA purposes and potential by decision-makers. Such an assumption is confirmed by the analysis of the research findings, as they suggest that the majority of the research participants from both cases do not perceive the potential and substantive outcomes in terms of social learning and sustainable development.

### **8.3.3 EIA in the decision-making and changes in projects**

As presented in chapter 2 (section 2.2), in line with the rationalist paradigm, EIA is broadly perceived as a tool to inform the decision-making process about project design and consent. Cashmore *et al.* (2004, p. 299), by reviewing a list of studies produced in different countries regarding the contribution made by EIA to decision-making, show that EIA exerts some influence on consent decisions and project design. However, as the authors themselves describe, this has been characterised by a 'moderate rather than substantial' influence (Cashmore *et al.*, 2004, p. 299). Although the findings of the International Study of the Effectiveness of Environmental Assessment produced by Sadler (1996) were the subject of analysis of the study by Cashmore *et al.* (2004), it is still important to highlight that Sadler's findings are confirmed by those of Cashmore *et al.* in terms of EIA having a moderate influence on the redesign and consent of proposals.

Wood (2003) conducted a similar comparative review of seven EIA systems worldwide and concluded that EIA does modify the project design before the formal submission of applications and/or during the EIA process; however, such changes are minor and are made to mitigate the most negative impacts of the project (Jay *et al.*, 2007). According to these studies and other literature (Weston, 2004), EIA may not play a central role in the decision-making process

but the information provided by the process does bring other benefits, such as establishing planning conditions and mitigation measures.

The results of the present research agree with the discussion above by demonstrating that the EIA process may not have affected the final decision regarding site selection or the possibility of non-realisation of both major sports events, but the EIA results did bring some changes to projects in London 2012 and Rio 2007, as shown in chapters 6 and 7 (sections 6.2.1 and 7.2.1). However, such changes (e.g. position of buildings, reforestation) were minor and mostly related to redesign and mitigation measures. These findings are also in line with those of Leknes (2001), who investigated the role of EIA in the decision-making process concerning the approval of petroleum developments in Norway and concluded that although EIA played a minor role in the decision-making process, it provided an early indication of the likely requirements that would be converted into consent conditions for the developments. The analysis of the findings not only from the present research but also from other studies mentioned above confirm the basic view of EIA suggested by the literature as a tool to inform the decision-making process about project consent and design, reinforcing the rationalist, procedural and teleological approaches to EIA (see chapter 2, section 2.2).

Still concerning the subject of design, it is important to outline that both Games have had a positive experience in terms of integrating EIA and design into the scope of their projects. As discussed in chapters 6 and 7 (sections 6.2.1 and 7.2.2), EIA and design teams conducted joint work for the Pan American Village in Rio de Janeiro while London 2012 used EIA as a design tool for the Master Plan project. Research participants involved in both major sports events expressed the opinion that such integration between EIA and design in the early stages of the planning process allowed the improvement of their schemes (sections 6.2.1 and 7.2.2). According to Glasson (1999), the use of EIA in the early stages of project planning brings two positive outcomes: a) it contributes to improved project design (as the empirical evidence shows); and b) it helps to avoid the delays and costs involved in identifying environmental constraints by carrying out EIA after project design has been completed.

The research findings on the integration of EIA with project design tend to support the environmental design model of Cashmore (2004), presented in chapter 2 (section 2.2), which advocates EIA as a fully integrated component of project design. Despite the attractiveness of this model, which may sound inclusive and collaborative, it should be kept in mind that the environmental design model belongs to the paradigm of EIA as applied science (see chapter 2, section 2.2). This means the environmental design model has philosophical links with the scientific model and positivism which have also influenced the rationalist approach (see chapter 2, section 2.2). Therefore such a model has close links with the rationalist procedural theories of EIA (see chapter 2, section 2.2).

#### **8.3.4 The Rio 2007 Pan American Games as a preparation for hosting the Olympic Games and the concentration of the Games in *Barra da Tijuca* (political and economic interests)**

Another key finding of this research is related to the fact that the Rio 2007 Pan American Games were considered by the delivery bodies as a preparation for hosting the Olympic Games (see chapter 6, section 8.3.5). Making the decision to elevate the status of venues and sport facilities to the Olympic standard had a direct impact on the legacy of the Games. Similarly, the decision to concentrate the Games in the area of *Barra da Tijuca* also had a significant influence on the legacy issue, although from different perspectives. On one hand, it is unquestionable that venues and sport facilities which were built according to Olympic specifications are an important asset for Brazilian sport and contributed decisively for Rio de Janeiro to win the bid to host the Olympic Games in 2016. On the other hand, concentrating the Games in the cluster of *Barra* (see chapter 6, sections 6.3.6 and 6.3.7), which represents one of the most developed areas of Rio de Janeiro, limited the possibilities of a long-term legacy in terms of urban regeneration. There was a valuable legacy regarding sport facilities; however, it did not represent any significant changes in terms of urban regeneration. Perhaps, one of the few positive examples of urban revitalization took place in the neighbourhood where the *Joao Havelange* Stadium is located (see chapter 6, section 6.3.7). In general terms, it was felt

from the interviews that hosting the Olympics 2016 was the most important legacy of the Pan American Games.

Weston (2000) states that decision-making in planning, and by consequence in EIA, is inherently political in nature. This statement is particularly pertinent to explain these two major decisions made in the context of the Rio Pan American Games regarding their upgrade to the Olympic standard and their concentration in *Barra da Tijuca* (see chapter 6, sections 6.3.5 and 6.3.6). It could be argued that these decisions had a political character as the former decision was possibly oriented to strengthen the Brazilian bid to host the Olympic Games (see chapter 6, section 6.3.5) and the latter probably in terms of economic and commercial reasons (although the research findings do not point explicitly to economic goals for the concentration of the Games in that area). Cashmore *et al.* (2004) suggest it is difficult to predict the outcomes of political decisions because the process in which they are reached involves trade-offs, compromise and stakeholder interactions, potentially reflecting power relations and interests.

The implications of these two decisions were major ones as Brazil won the bid to host the 2016 Summer Olympic Games. However, the concentration of the Games in *Barra da Tijuca* compromised the legacy potential regarding urban regeneration that the Games could have fostered (see chapter 6, sections 6.3.6 and 6.3.7). Both decisions, according to the approaches discussed in chapter 2 (section 2.2), applied a cognitive-instrumental rationality and a teleological approach as both were oriented to achieve a certain objective. These decisions are also in line with the incrementalism model of the behavioural theories of decision-making, which emphasises that the means and ends of decision making are politically defined (Weston, 2000) (see chapter 2, section 2.2).

### **8.3.5 Success factors and lessons from London 2012 through the lenses of collaborative planning (stakeholder engagement, independent scrutiny, communications and negotiations)**

Important lessons from London 2012 can be linked to the early stages in the planning process when delivery bodies made the decision to place sustainability

and long-term legacy at the core of the entire project. Given the relevance of these issues, environmental NGOs (WWF and BioRegional) were invited to work in partnership with London 2012 as advisory bodies at the beginning of the planning process. This initiative was pioneering, being the first time that an Olympic Games developed a partnership with environmental NGOs in favour of sustainability leading the planning process (see chapter 7, section 7.3.1).

Moreover, the Commission for a Sustainable London 2012 (CSL) was set up as an independent body to ensure London 2012 meets its sustainability commitments. As the Commission is independent from the government and other delivery bodies, it is perceived by key stakeholders as a valuable and trusted assurance body. It should be added that this is also the first time that an assurance body such this Commission is set up in the context of the Olympic Games (see chapter 7, section 7.3.1).

Legacy as said before was also placed at the centre of the planning process. Hosting the Games represents a unique opportunity to leave a long-term legacy for London. This is one of the main reasons why the city bid to host the Games in the first place. As discussed before, Rio de Janeiro opted to concentrate the Games in a developed area (*Barra da Tijuca*) while London chose one of its most deprived areas (East London). So the whole concept of Olympic legacy is embedded in regeneration which is expected to change the dynamics of East London in terms of job opportunities, professional qualifications for local people, homes, environmental improvements, etc (see chapter 7, section 7.3.4). As the concept of a sustainable long-term legacy is so important for London 2012, a specific organization was set up, namely the Olympic Park Legacy Company (OPLC), in order to administer the Olympic Park and ensure a living legacy for the local community (see chapter 7, section 7.3.4). This was undoubtedly another valuable lesson to be learnt for London 2012.

Therefore, London 2012 and the Rio 2007 Pan American Games clearly have different situations in terms of legacy. In the case of the Brazilian Games, there were not either financial resources left from the construction of sport facilities or time to invest in infrastructure projects (metro, airport, etc) and in urban

regeneration, such as decontamination of the *Jacarepagua* lagoons, which are areas in need of improvements (see chapter 6, section 6.3.7).

As there was not a specific long-term legacy planning for the Rio 2007 Pan American Games apart from the Agenda of Urban Development for the Games (see chapter 6, section 6.3.7), the post-event use of sport facilities was probably not planned; as a result most of the facilities, which are at the Olympic level, are under-utilized or are being used for other purposes than sport (see chapter 6, section 6.3.7). Planning the legacy of major sports events is crucial for maximising their benefits and validating their realization, as the case of London 2012 shows. In terms of the environment, long term legacy planning is also essential to provide an adequate context for subsequent projects and minimizing the negative consequences on the environment.

In line with the discussion above, chapter 7 (sections 7.3.1, 7.3.2, 7.3.4 and 7.4) has presented the following research findings from the London 2012 case study: a) placement of sustainability and legacy at the core of the Olympic project; b) high weight given to environmental considerations in the decision-making process; c) creation of the Olympic Delivery Authority (ODA); d) involvement with environmental NGOs at the beginning of the planning process; e) creation of the Commission for a Sustainable London 2012 (CSL); f) location of the Games in East London; and g) creation of the Olympic Park Legacy Company (OPLC). Such findings can be analysed in the light of collaborative planning and deliberative democracy discussed in chapter 2 (sections 2.2 and 2.3). Planning and EIA might be a highly top down activity as Weston (2010) argues; however, London 2012 represents a positive and successful example of applying collaborative planning in practice. By engaging with environmental NGOs at early stages of the planning process, London 2012 demonstrates that another way of doing things is possible, corroborating the view that collaborative planning 'may have the potential to be transformative, to change the practices [...] (Healey, 2003, p. 107). The engagement with NGOs in the planning process is also in line with the centrality of the concept of stakeholder engagement for the communicative rationality proposed by collaborative planning (see chapter 2, sections 2.2 and 2.3).

The research finding regarding the engagement with environmental NGOs also supports Rydin and Pennington's (2000) claim that collaborative planning can contribute to a more inclusive planning system and for a more deliberative form of democracy by promoting this type of stakeholder engagement (see chapter 2, section 2.3). Moreover, this finding on the engagement with NGOs plus the finding regarding placing sustainability and legacy at the core of London 2012 reflect Lawrence's (2003) and Holder's (2004) views of the contribution of collaborative forms of planning to environmental justice and sustainability in line with the principles of Agenda 21 (see chapter 2, section 2.3). Still within this context, the findings listed above also agree with the participation and environmental governance models of Cashmore (2004) in terms of stakeholders playing a more inclusive and deliberative role within an environmental governance model that promotes a more equal society and contributes to a more sustainable form of development (see chapter 2, section 2.2).

The other research findings listed above regarding creation of ODA, CSL and OPLC are not only associated with collaborative forms of planning but also with governance issues. Carpenter and Brownill (2008, p. 230) state that the concept of governance cultures is related to 'the norms that are embedded within the working practices of actors and institutions involved in governance'. As discussed in chapter 2 (sections 2.2 and 2.3), governance is one of the key elements for collaborative planning along with the concept of stakeholders involvement. It is argued that by creating and enabling different bodies such as the ODA (Games delivery), the CSL (independent scrutiny) and the OPLC (legacy delivery) to work together, it is possible to improve governance issues in the context of the Games. Perhaps, 'there is never a powerless situation among stakeholders' as Persson claims (2006, p. 610). However, the importance of the findings is that they suggest that by creating this joint work it is possible to foster opportunities for communications and negotiations whilst minimizing negative power relations and political influences, which were evident from the Brazilian case study.



### **8.3.6 Public participation**

Public participation is the third pillar of the Aarhus Convention that emphasizes the role and importance of public participation in environmental decision-making (Hartley and Wood, 2005) (see chapter 5, section 5.3). The public consultation undertaken for London 2012 and for the Pan American Village (the only project in the scope of the Rio 2007 Games that carried out public consultation) appears to have been effective, with opinions being considered and projects changed, as discussed in chapters 6 and 7 (sections 6.3.4, 7.3.3.1 and 7.3.3.2). Despite this, research participants, from both cases, expressed their concern regarding a series of problems which may affect the general conduct of public consultation for projects in England and Brazil. The findings (and problems) are as follows: a) basic requirements for participation in EIA is limited; b) public participation is formal and limited to large scale exercises; c) it is seen as a requirement rather than an opportunity to improve the project; d) it does not communicate effectively how opinions are taken on board; e) it does not communicate what has been delivered; and f) lack of participation by the public.

As discussed in chapter 5 (section 5.3), although the third pillar of the Aarhus Convention regarding public participation has been addressed by the European Directive 2003/55/EC with the purpose of strengthening the provisions for public participation in EIA (Hartley and Wood, 2005), the findings suggest that more guidance on public participation would be still necessary. Wood (2003) outlines that the availability of clear guidance on the procedures and techniques used for participation are helpful for all stakeholders involved in the EIA process: proponents, decision-makers, consultees and the public.

The view that public participation is limited to a formal exercise or a legal requirement is supported by Shepherd and Bowler (1997, p. 725) who state 'citizen involvement is often reduced to a procedural exercise instead of a substantive process to include the public in environmental decision making'. Such a perception on the one hand is consistent with the model of instrumental rationality of decision-making employed in representative democracy which is notably characterized by its limited access to public participation (Holder, 2004)

(see chapter 2, section 2.3). Moreover, it also supports the consultation degree located in Arnstein's ladder discussed in chapter 2 (section 2.3). However, on the other hand, participation as a procedural exercise does not contribute to the substantive outcomes of EIA in terms of a social learning opportunity for the public to learn 'about and through the EIA process' (Lawrence, 2003, p. 386) (see chapter 2, sections 2.2 and 2.3).

Wood (2003) indicates that the results of participation need to be published in order to check their use in the EIA process. The research findings regarding the communication of how opinions were considered in the decision-making process agree with the findings of Hartley and Wood's study (2005, p. 332), which stresses the need of the public to 'be far better informed about how their opinions have been taken into consideration in making the planning decision'. This is also in line with Glasson, Therivel and Chadwick (2005, p.165), who state that 'an essential part of effective public participation is *feedback about any decisions* and actions taken, and how the public's views affected those decisions'. These issues are central for collaborative planning and deliberative democracy because they are related to communication and understanding between stakeholders, a premise which is at the core of communicative rationality.

The research findings related to a lack of participation by the public can be analysed from different perspectives: it could be linked to the perception that opinions may not be taken into consideration so people feel discouraged to participate and to what Beck has coined 'the risk society' (Weston, 2004), which is a loss of trust in experts in general. Another finding on the negative participation of opportunist NGOs in the EIA process in Brazil (see chapter 6, section 6.2.3) may confirm the conflictive and complex nature of the planning process and decision-making which are formal arenas where 'a complex web of interconnected agencies, public bodies and interest groups [...] come together [...] to protect or promote their particular interest in the environment' (Weston, 1997, p. 94).

The research findings, particularly from London 2012, on the different ways the public was involved in the participation process (see chapter 7, section 7.3.3) and on stakeholder involvement with environmental NGOs, discussed in section 8.3.5, seem to indicate application of the participation and environmental governance models of Cashmore, discussed in chapter 2 (section 2.3), as this governance model empowers stakeholders to play a more substantial and inclusive role in terms of participation (Cashmore, 2004). Although these represent positive examples of participation, it should be noted the findings are still located in the participation degree of Arnstein's ladder (see chapter 2, section 2.3), confirming Petts' (1999) view that this level of participation is the one that many planning and EIA processes have supported, as discussed in chapter 2 (section 2.3).

Public involvement can foster mutual understanding and communication (Shepherd and Bowler, 1997) within the communicative rationality and deliberative ethic applied to planning and environmental assessment. In terms of the contribution of public participation to more participatory and democratic decision-making processes, the following quotation from London 2012: *'don't pretend you are going to give them [the public] the opportunity to write the plans and that you are going to do everything they say'* (OPLC, 01:00:14) perhaps show the long way public involvement has to go before reaching the upper levels of Arnstein's ladder which foster citizens' engagement and empowerment in order to build a more emancipatory society.

Tables 8.2 and 8.3 below summarize the key major problems and success factors gathered from the interviews with key stakeholders from London 2012 and the Rio 2007 Pan American Games.

Table 8.2: List of key problems identified in the English and Brazilian contexts and case studies.

Category	Sub-category	Problems - England		Problems - Brazil	
		EIA and Environmental Licensing		Although environmental licensing has been decentralized, EIA is still too concentrated at the State level in Rio de Janeiro	
Environmental Impact Assessment		Mitigation measures are not a legal requirement in the EIA process depending on the context		Sport related infrastructure such as sport stadiums are not included in the official lists of developments subject to environmental licensing and EIA at the federal level	
		The long length of EIS		Environmental assessment procedures are seen as obstacles and legal impositions	
		Sometimes EIA is seen as a post hoc rationalisation for something that has been already decided to be done		Fear of legal challenge by third parties regarding the EIA results	
		Lack of engagement between EIA team, design team and planning authorities		Regular legal steps of the environmental licensing process were not followed as the Federal Government enacted a special decree	
		Lack of more legal guidance on EIA		By issuing LI instead of LP did not allow the environmental licensing to inform properly the decision-making and planning processes	
		Local authorities have a few experts in house with confidence enough to assess an EIA (lack of resources and expertise)		The planning system is too bureaucratic at all levels of government	
		Environmental impact assessment procedures are seen as 'tick box exercise'		Negative influence of political and economic interests	
		Fear of legal challenge by third parties regarding the EIA results		Lack of engagement and tense relationship between government agencies for the environment and developers applying for environmental licensing	
		The environmental impact assessment for temporary and permanent buildings should be different		The fact that sport related infrastructure such as sport stadiums are not listed as developments subject to environmental licensing and EIA at the federal level may have limited the implementation of these procedures in the context of the Games	
	Implementation of EIA regulations and decisions	None		The enactment of a special decree in the context of the Games may have affected the implementation of the environmental licensing	

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Decision-making Process	Enforcement of EIA regulations and decisions	None	It is a sensitive issue
			It was not effective
			Lack of personnel
	Relationship between key stakeholders	None	Corruption issues
			Scale of the country
			Strong environmental implementation versus weak
	Weight of environmental issues	None	Lack of equipment
			Tense relationship between governments (federal, state and municipal)
			The Games were seen for a long time as a project of the Municipality of Rio de Janeiro
	Public Consultation	None	Lack of time
			Enactment of a special decree by the Federal Government considering emergency the constructions for the Games
			The government (federal, state and municipal) were the delivery bodies of the Games
	Lack of people's participation	It is excessively formal and it tends to be limited to	The weight of environmental issues were low in the decision-making process of the Games
			Financial resources, deadlines and political issues weighted more than environmental issues in the decision-making
			Negative influence of 'opportunistic NGOs'
	Lack of people's participation	It is excessively formal and it tends to be limited to	Environmental licensing not followed by EIA is not required by law to undertake public consultation in the state of Rio de Janeiro
			Lack of people's participation
			It is excessively formal and it tends to be limited to



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			large scale exercises	
			It is much more a communication exercise rather than an opportunity to engage people	
			It is seen as a requirement, not as a positive opportunity to improve the project	
			It does not communicate effectively how the opinions are taken on board	
			It does not communicate what is delivered	
			Presence of 'professional objectors' as consultees	
			Not applicable	
			Not possible to judge at this point	
			Concentration of the Rio 2007 Games in <i>Barra da Tijuca</i>	This choice limited the legacy potential in terms of urban regeneration as <i>Barra da Tijuca</i> is a developed area
			Legacy of the Games	Most of the sport facilities are under-utilised or used for other purposes than sport
				Lack of planning for the use of facilities post-Games
				There was not left any significant legacy in terms of infrastructure
				The Games did not represent a significant catalyze in terms of urban regeneration
				The Games did not generate significant changes in the environmental condition of the city
				No long-term legacy planning

Source: The author, 2011.

Table 8.3: List of success factors identified in the English and Brazilian contexts and case studies.

Category	Sub-category	Success factors - England		Success factors - Brazil	
		EIA and Environmental Licensing		Decentralization of the environmental licensing in Rio de Janeiro	
Environmental Impact Assessment		EIA seemed to be used as a design tool optimising the design of buildings and infrastructure and being informed by the EIA process		EIA of the Pan American Village was hand in hand with design	
		Use of other environmental assessment tools such as health impact assessment, flood risk assessment, equality assessment and others associated with climate change, carbon footprint and ecological footprint		Design of the Pan American Village incorporated concepts of energy efficiency (which were ahead of those commonly used by the civil construction in Rio de Janeiro)	
	Other assessment tools	Use of other environmental assessment tools such as health impact assessment, flood risk assessment, equality assessment and others associated with climate change, carbon footprint and ecological footprint		Use of other assessment tools such as neighbourhood impact study (EIV)	
	Implementation of EIA regulations and decisions	The implementation of EIA regulations and decisions was in place following what the regulations sets out		Environmental licensing and EIA were implemented according to pertinent regulations for the Pan American Village	
Decision-making Process	Enforcement of EIA regulations and decisions	The enforcement of EIA regulations and decisions was in place following what the regulations sets out		Mitigation measures, monitoring plans and environmental programs of the EIA for the Pan American Village were implemented	
		The enforcement of EIA regulations and decisions was in place following what the regulations sets out		The enforcement of environmental licensing and EIA in the context of the Games was reasonable compared to Brazilian standards	
	Relationship between key stakeholders	The relationship between delivery bodies, governments and key stakeholders seems to be positive		The Public Ministry and the Environmental Crime Law contribute to the implementation and enforcement processes of environmental licensing and EIA	
				Not applicable	

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		Creation of the Olympic Delivery Authority (ODA)			
		Involvement of environmental NGOs (WWF and BioRegional) at the beginning of the planning process as advisers			
		Creation of the Commission for a Sustainable London 2012 – an independent assurance body			
	Weight of environmental issues		The weight of environmental issues seems to be high in the decision-making of the Games		Not applicable
			Sustainability is at the core of the Olympic project		
	Public Consultation		The public consultation carried out for the EIA was effective		Public consultation was satisfactory for the Pan American Village  Opinions were taken into consideration and changed projects
			Opinions gathered were taken into consideration and changed projects		
	Concentration of the Games in East London		This choice allowed a significant legacy in terms of urban regeneration		Not applicable
	Legacy of the Games		Along with sustainability, legacy is placed at the core of the Olympic project		Sport facilities were built according to Olympic standards
			Creation of the Olympic Park Legacy Company (OPLC) to deal with the long-term legacy of the Games		Joao Havelange Stadium revitalized the neighbourhood area where it is located
				Rio de Janeiro won the bid to host the Summer Olympic Games in 2016	

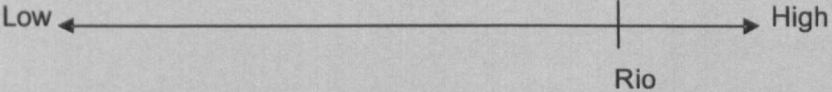
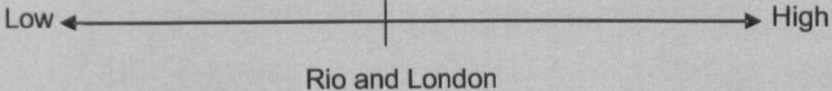
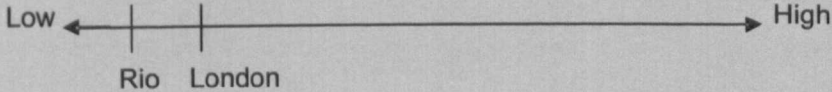
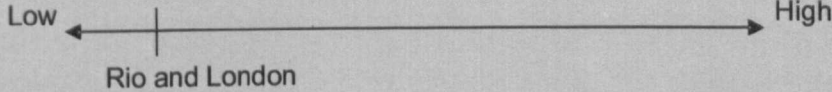
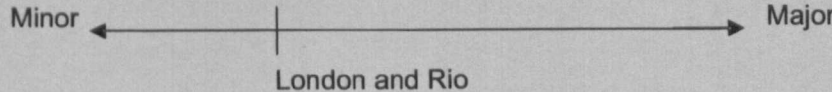
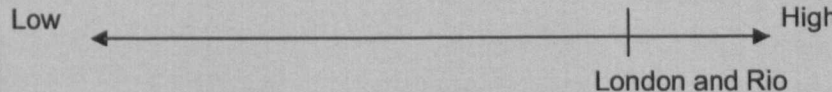
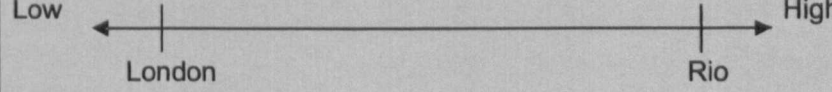
Source: The author, 2011.



Table 8.4 below summarizes some of the research findings in the light of the theoretical framework discussed in this chapter.

Table 8.4: Research findings in the light of the theoretical framework.

Factor	Spectrum
ESs of the London 2012 Master Plan and the Pan American Village	<div>Substantive ←————— ————→ Procedural</div> <div>outcomes of EIA</div> <div>London and Rio</div>
Relationship between key stakeholders	<div>Collaborative ←—— ———— ————→ Top-down</div> <div>London Rio</div>
Stakeholder engagement in the planning process (e.g. environmental NGOs)	<div>Collaborative ←—— ———— ————→ Top-down</div> <div>London Rio</div>
Setting up of the Commission for a Sustainable London 2012 and the Olympic Park Legacy Company	<div>Collaborative ←—— ————→ Top-down</div> <div>London</div>
Enactment of a special decree with no written evidence (Brazil)	<div>Collaborative ←————— ————→ Top-down</div> <div>Rio</div>
Public Participation	<div>Collaborative ←—— ———— ————→ Top-down</div> <div>London Rio</div>
Arnstein's ladder of participation	<div>Citizen Control</div> <div>Delegated Power</div> <div>Participation</div> <div>Consultation</div> <div>Information</div> <div>Manipulation</div> <div>London Rio</div>
Weight of environmental issues in the decision-making	<div>Low ←—— ———— ————→ High</div> <div>Rio London</div>

Weight of political and economic considerations in the decision-making of the Brazilian Games	
Contribution of EIA to decision-making	
Decision-makers' understanding of the potential of EIA as a planning tool	
Decision-makers understanding of the potential and substantive outcomes of EIA in relation to social learning and sustainable development	
Changes in projects due to EIA in terms of redesign and mitigation measures	
Integration of EIA and design of projects in line with the environmental model of Cashmore (2004)	
Influence of governance issues (e.g. clientelism, corruption and bureaucracy) in the planning process	

Source: The author, 2011.

## **8.4 Conclusions**

This chapter has provided a comparative analysis based on the findings from both case studies and their links with the theoretical dimension of the research established in chapter 2. By analysing the key findings, major problems and success factors, it is possible to conclude that the results of the English case study differ from those of the Brazilian case study. The English key findings are more related to the success factors whilst the Brazilian key findings are more associated with the major problems. With respect to the theories applied to analyse the findings of this research, it is also possible to conclude that although London 2012 represents a more collaborative form of planning process, collaborative planning still has a long way to go before being consolidated as a practice in the context of major sports events. In the Brazilian case study, which was far from being collaborative, the negative influence of governance issues, such as corruption, clientelism practices, political and economic interests, is clear in the planning process. The influence of these elements also compromises the implementation and enforcement of the environmental licensing system and EIA in the country.

The conceptual models developed for the English and Brazilian case studies illustrate the different approaches in terms of collaborative and non-collaborative planning taken by London 2012 and Rio 2007. The conceptual model of the Brazilian case study shows the need to consider governance issues and power relations more proactively in the planning process of major sports events in that context. This is a challenge for collaborative planning particularly because this form of planning is criticised by its limitation in recognising power relations (see chapter 2, section 2.2). For Brazil this also represents a major challenge as the country will host two major sports events in the following years (the Football World Cup in 2014 and the Summer Olympic Games in 2016). Therefore the lessons learnt from the Rio 2007 Pan American Games and from other experiences elsewhere, such as from London 2012, are vital to improve the planning process and the environmental sustainability of the forthcoming major sports events held in the country.

The remaining chapter brings together the conclusions of the research and presents the answers to the research question, objectives and aim, the evaluation of the methodology employed, recommendations, recommendations for further research and the original contribution to knowledge.

## 9 CONCLUSION

### 9.1 Introduction

This is the final chapter of the thesis and draws the research to an end. Chapter 8 has drawn the comparisons between the findings against the theoretical framework developed in chapter 2. Therefore, it is not the intention here to repeat the discussion of the findings provided in the preceding chapters, meaning that this chapter is intended to present a brief concluding statement for the thesis. The concluding statement also answers the research question and addresses the aim and research objectives. This is followed by an evaluation of the research methodology used and a set of recommendations for major sports events and related infrastructure to strengthen the consideration of environmental assessment procedures in their planning processes. Finally this chapter concludes with recommendations for further research and with a summary of the original contribution to knowledge.

### 9.2 Concluding statement

This research aimed to analyse the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England. The research findings suggest that the answers to the research question: *'how important are environmental issues in the decision-making in the planning process of major sports events and related infrastructure?'* are different between the English case study and the Brazilian one. As London 2012 placed sustainability at the heart of the planning process, the weight of environmental issues is perceived as high in the decision-making process, in contrast to the Rio 2007 Pan American Games where the weight given to environmental issues was perceived as low in the same process (see chapters 6, 7 and 8, sections 6.3.2, 7.3.2 and 8.3.2).

In the case of the Rio 2007 Games, political issues had a strong influence in the decision-making process in terms of political-party divergences between the main delivery bodies which were the three levels of governments themselves in

Brazil (federal, state and municipal) (see chapters 6, 7 and 8, sections 6.3.1, 7.3.1 and 8.3.1). Due to such political divergences, time became a limitation in the planning process of the Games and an important decision was made to enact a special decree whose content negatively affected the environmental licensing for the developments within the Pan American Games (see chapters 6 and 8, sections 6.3.4 and 8.3.1). Another two major decisions, which seem to be very political in their essence, were also made in the scope of the Rio 2007 Games regarding its upgrade to the Olympic standard in order to strengthen the Brazilian bid to host the Olympic Games and its concentration in *Barra da Tijuca* (see chapters 6 and 8, sections 6.3.5, 6.3.6 and 8.3.4).

In terms of decision-making, London 2012 gives a positive example by engaging early in the planning process with environmental NGOs; by setting up an assurance body to assess whether the sustainability targets are being met or not; by creating a specific company to administer the legacy of the Games; and by choosing East London as the main site for the Games (see chapters 7 and 9, sections 7.3.1, 7.3.4 and 8.3.5).

Summarizing the answers to the research question, according to the Brazilian case study, the weight and influence of environmental considerations seem to be low in the decision-making process as other issues such as political ones had a more prominent influence. In the English case study, it was decided to place sustainability at the heart of the planning process as mentioned before. In addition, other decisions made in the scope of the Games such as the ones stated above contribute to reinforce the high weight and influence of environmental considerations in the decision-making process.

Regarding research objective 1: *'to provide a comparative critique of the planning and environmental impact assessment systems in Brazil and England to understand what these systems seek to deliver with particular reference to major sports events and associated infrastructure'*, as discussed in chapter 4 (see section 4.5), it is argued that the underlying philosophy of both planning systems is based on concepts of collaborative planning and stakeholder engagement which have influenced the official faces of planning in Brazil and

England after the respective planning reforms in 2001 and 2004. Communication and negotiation among stakeholders in order to achieve consensus or at least an agreement which is supported by the parties involved in relation to planning outcomes are key elements of the collaborative approach that underpins the English and Brazilian planning systems. In addition, the new faces of planning in England (spatial planning) and Brazil (urban planning) seem to adopt a more integrative approach which does not consider only land use issues but also takes account of social and environmental dimensions. So both systems aim to deliver a more sustainable urban form based on a participatory/deliberative democracy, at least in line with their key planning documents at national, regional and local levels. However, such an aim is constrained in practice by several issues, such as power relations, political pressures, economic interests, which have been identified by the present research as elements that also constrain the planning process of major sports events (see chapter 8).

With respect to EIA, as discussed in chapter 5, England and Brazil have a competent system in terms of regulatory framework which is closely linked to the requirements set out by the planning systems of both countries. Despite this, a key criticism of the Brazilian EIA system is with regard to the fact that urban development projects related to sport infrastructure are not specifically included in the lists of proposals subject to environmental licensing and EIA, which can present problems for the competent environmental authority in determining whether environmental licensing and EIA are needed for sport related infrastructure projects. This situation differs from England where the projects related to infrastructure developments such as urban development projects and sports stadiums are explicitly listed under Annex 2, part 10(b).

Both English and Brazilian planning and EIA systems represent an important framework for major sports events and associated infrastructure not only from the perspective of implementing them through planning and EIA procedures but also from the viewpoint of planning their legacy (urban regeneration, infrastructure) for the host city. It is argued that major sports events require a full range of related services and infrastructure in order to operate (e.g. water

supplies, water treatment, drainage, sewage, gas, electricity, solid waste treatment, transport, communications, etc). For this reason, it is essential that the planning system along with the EIA regulation and planning processes of major sports events and related infrastructure pay particular attention to what is left after such events to ensure the long-term gain in terms of infrastructure, urban regeneration and improvements in the quality of the environment which can be fostered by major sports events.

In relation to research objective 2: *'to examine the implementation process of EIA regulation, which corresponds to the implementation phase of the planning, in the contexts of a Brazilian and an English major sports event'*, the research findings indicate that the implementation and enforcement of environmental assessment procedures and decisions seem to be undertaken according to relevant regulations in the context of London 2012 and of the Pan American Village (see chapters 6, 7 and 8, sections 6.2.4, 6.4, 7.2.3 and 8.2.3). The other new developments in the scope of the Rio 2007 Pan American Games were carried out with environmental licensing under the arrangements of the special decree which compromised the enforcement, particularly of mitigation measures (see chapter 6, section 6.4). The fact that the three levels of government were the delivery bodies of the Games in Rio de Janeiro might have contributed to a reasonable enforcement of the environmental licensing and EIA in the context of the Games, particularly when compared to Brazilian standards of enforcement (see chapter 6, section 6.2.4). Despite the existence of several problems regarding enforcement in Brazil (see chapters 6 and 8, sections 6.2.4 and 8.2.3), this research has shown the importance of the Public Ministry and the Environmental Crime Law for the enforcement process.

Concerning research objective 3: *'to identify and compare major problems and success factors with regard to EIA and decision-making in the contexts of a Brazilian and an English major sports event'*, this research has shown a set of key problems and success factors related not only to the case studies but also to the English and Brazilian contexts (see chapter 8). By analyzing and comparing major problems and success factors, it is possible to conclude that the results of the English case study differ from those of the Brazilian case



study. The English key findings are more related to success factors whilst the Brazilian key findings are more associated with major problems (see chapter 8, section 8.4). This situation is also confirmed by the conceptual models produced in chapter 8 (see section 8.1) for each case study. Major problems regarding EIA and decision-making examined in the context of the Rio 2007 Pan American Games are strongly linked to governance issues, namely power relations, political and economic interests, corruption and bureaucracy, which largely shaped the decision-making and planning processes of the Games (see figure 8.1). On the other hand, key success factors which also represent important lessons to be learnt can be associated with London 2012. Interestingly, key success factors, as major problems, are also linked to governance issues however in a positive way. As London 2012 has adopted a model based on stakeholder engagement, communication and negotiation (see figure 8.2), the whole decision-making and planning processes were more collaborative when compared to Rio 2007, which may have reduced the number of problems regarding EIA and decision-making in the scope of the planning process of the London Games.

With regard to research objective 4: *'to examine the extent to which lessons may be learnt from the English and Brazilian experiences on major sports events for the Brazilian context as well as elsewhere'*, research findings indicate that there are valuable lessons to be learnt from London 2012 and Rio 2007 experiences on planning major sports events and related infrastructure. As discussed before in the present section, London 2012 represents a positive example for other major sports events by promoting stakeholder engagement, particularly by engaging with environmental NGOs from the beginning of the planning process; by setting up an independent assurance body (Commission for a Sustainable London 2012) which makes sure the Games are meeting their environmental targets established at early stage of the planning process; by creating a specific company to administer the long-term legacy of the Games; and by selecting East London, an area in need of regeneration, as the main site for Olympic Park (see chapters 7 and 9, sections 7.3.1, 7.3.4 and 8.3.5). These are important lessons from London 2012 which can be translated into practical

recommendations for other major sports events (see section 9.4 for recommendations).

Important lessons can also be drawn from the Rio 2007 Pan American Games experience. As said before in this section, issues of power relations and political interests associated with time constraints had a direct impact on the way decisions were made in the planning process of the Games. For this reason, a key lesson to be learnt from the Brazilian Games is the need to consider governance issues and power relations more proactively both in the decision-making and planning processes of major sports events in contexts where such issues are more prominent as it is the case of Brazil. Understanding and learning from the experience of the Rio Pan American Games is essential to improve the planning process and the environmental sustainability of the forthcoming major sports events which will be held in the country in 2014 and 2016 (Football World Cup and Summer Olympic Games).

In order to satisfy the research aim: *'to analyse the decision-making in the planning process and the contribution of EIA in the context of major sports events and related infrastructure in Brazil and England'*, based on the research findings, it is possible to conclude that there is a gap that needs to be bridged between EIA and planning processes of major sports events and related infrastructure. From both case studies, it is clear that decision-makers do not perceive the real potential of EIA and other assessment procedures either as decision-making and planning tools or as vehicles for social learning and sustainable development (see chapter 8, section 8.3). This is probably the reason why several problems regarding EIA have been identified by this research (see chapter 8). As the rationalist procedural dimension of EIA is still largely ingrained in EIA practice, which is reflected in most of such problems, this research has demonstrated that the contribution of EIA to the decision-making is still moderate rather than substantial and that the decision-making is largely influenced by other issues such as political and economic interests and power relations. Therefore, it is difficult but necessary to advance EIA towards its substantive purposes and outcomes in order to fulfil its role and to engage

more proactively in the decision-making and planning processes of major sports events and related infrastructure.

There is no doubt that major sports events and related infrastructure have also the potential to contribute to EIA fulfilling its substantive outcomes as they are capable of providing opportunities for social learning and of fostering sustainable ways of development within their own planning process. However, in order for this to happen, it is necessary that decision-makers embrace not only the potential that major sports events have in terms of catalysing sustainable development but also the potential of EIA as decision-making and planning tools which will ultimately contribute for major sports events to achieve a more sustainable form of development.

### **9.3 Evaluation of the research methodology and process**

Undertaking PhD research is a unique journey and a valuable learning opportunity. There are several challenges and constraints along the way that influence the research design. The use of and specific choice of case study proved to be useful as it allowed a deep understanding of the key issues addressed by this investigation. The selection of London 2012 and Rio 2007 Pan American Games as the cases provided a rich empirical basis for this study, particularly due to the differences in terms of planning and EIA systems provided by the two contexts. Here it could be argued that a selection of additional cases from a different context rather than England and Brazil could have enriched even more the research; however, due to time and resources constraints this possibility was disregarded at the beginning of this research project.

Based on the research question, aim and objectives, semi-structured interviews and document analysis were the methods used for data collection and both served well for this purpose. It is worth highlighting the importance of a multi-method approach to research and this study provides an important and useful example in this regard. Hypothetically speaking, if the research design had employed only document analysis, the findings related to the enactment of a

special decree and the tense relationship between the three levels of government in the context of the Rio 2007 Pan American Games would not have been collected as they emerged from the interviews (see chapter 6, sections 6.3.1 and 6.3.4). This example also illustrates the importance and richness of cross-checking results from different methods which allows degrees of triangulation (see chapter 3, section 3.3.3).

In relation to the possibility of having applied other data collection methods, such as focus group, perhaps it could have been possible and useful for the research to organise some focus group sessions with the local communities associated with the Games from both countries in order to collect their points of view and perceptions in relation to the positive and negative implications of both projects for their communities. Despite this the results of the research were not affected in any aspect as the data collected from the interviews and document analysis was rich enough to provide a solid analysis.

An important limitation of this study is related to the document analysis carried out, particularly in Brazil. The access to the majority of the documentation on environmental licensing and EIA for the developments in the scope of the Rio 2007 Pan American Games was compromised firstly because this information is not available on the pertinent websites of the government at federal, state and municipal levels; and secondly due to the bureaucratic processes embedded in the environmental agencies where such documentation is housed. Here it is interesting to draw a parallel as a problem experienced in the course of this research also reflects the implications of the research findings regarding bureaucracy (see chapter 6, sections 6.2.3). Despite this difficulty, it should be noted that there were no negative consequences for the findings of the research.

A final limitation of this research is associated with the fact that the special decree mentioned above in this section has not been found electronically at any official source of legislation at federal, state and municipal levels (see chapter 6, section 6.4). Several telephone calls were made to research participants on different occasions in order to collect any information that could lead to this decree and despite such attempts no special decree has been found.

## 9.4 Recommendations

As previously stated in section 9.2, important lessons learnt from London 2012 and Rio 2007 experiences regarding the planning of major sports events and related infrastructure are capable of being converted into practical recommendations not only for further Brazilian sports events, such as the Football World Cup 2014 and the Summer Olympic Games 2016, but also for major sports events worldwide. Recommendations are organised according to their application into two groups: major sports events and EIA. Subsequently specific recommendations are proposed for the Brazilian context in order to strengthen its regulatory framework for environmental licensing and EIA. The recommendations are also organised according to their level of application (e.g. legislation, guidance) and who they aim at (e.g. delivery bodies, International Olympic Committee – IOC). The practical recommendations are as follows:

### **Major sports events**

*Level of application: guidance; aiming at delivery bodies*

- a) Early engagement with environmental NGOs and other key stakeholders is proposed as a positive 'bottom up' and collaborative approach to the decision-making and planning processes of major sports events. By adopting such early engagement it could be expected that stakeholders' opinions and concerns regarding EIA and environmental issues would be taken into consideration from the beginning of the planning process. This recommendation is based on a positive example observed in the English case study, which has adopted a collaborative approach in terms of early engagement with environmental NGOs at the beginning of the planning process. Besides, participation also generates a sense of ownership and belonging which is a valuable ingredient for the project development (see chapters 7 and 8, sections 7.3.1 and 8.3). This recommendation would improve existing planning processes of major sports events by introducing guidance on early engagement with stakeholders for delivery bodies to incorporate in the planning process.

*Level of application: guidance; aiming at IOC and delivery bodies*

- b) Creation of an independent assurance body is suggested in order to ensure sustainability commitments are met by major sports events. This is an important lesson to be learnt from London 2012, which set up an independent assurance body (Commission for a Sustainable London 2012), for the first time in the history of the Olympic Games, with the purpose of making sure the Games are complying with the environmental targets established at the beginning of the planning process. By creating such an independent assurance body it is also expected that the decision-making and planning processes will be given more credibility by other stakeholders involved in the process. As the case of London 2012 shows, stakeholders perceive the Commission as a trustable body, which provides valuable advice and assurance that the Games are meeting their sustainability targets (see chapter 7 and 8, sections 7.3.1 and 8.3). This recommendation aims at the IOC and delivery bodies and it would improve existing planning processes of major sports events by introducing guidance on setting up an independent assurance body to ensure sustainability commitments are met by major sports events.
- c) Establishment of an individual company to administer the legacy of major sports events is recommended with the purpose of maximizing the benefits brought by sport events for local communities. This is another important lesson to be learnt from London 2012. By placing legacy at the core of the planning process it is necessary to set up a separate company to deal specifically with the planning and administration of the legacy of major sports events. This is crucial to ensure the adequate use of facilities post-event, to develop the infrastructure necessary to the area where the sports event takes place and to maximize the opportunities in terms of regeneration, jobs creation, education, quality of life, etc for local communities (see chapters 6, 7 and 8, sections 6.3.7, 7.3.4 and 8.3). This recommendation, which aims at the IOC and delivery bodies, would improve existing planning processes of major sports events by introducing guidance on setting up an individual company to

administer the legacy of major sports events.

- d) Creation of a specific delivery authority for major sports events, separated from the government, is thought to be helpful in preventing negative consequences of potential tensions between different levels of government. This recommendation is particularly appropriate for contexts where governance issues, such as power relations, are more prominent. As identified in the Brazilian case study, the tension between the three levels of government in charge of delivering the Games were fundamental in shaping the way the Games were planned and delivered. Therefore, this recommendation is especially important to the Brazilian context in order to learn the lessons from the Rio 2007 Pan American Games and to avoid the repetition of the same problems in the future major sports events held in the country (the Football World Cup 2014 and the Rio Olympic Games 2016) (see chapters 6 and 8, sections 6.3.1 and 8.3). This recommendation aims at the IOC and delivery bodies and it would improve existing planning processes of major sports events by introducing guidance on setting up a specific delivery authority for major sports events, separated from the government, with the purpose of minimizing the negative influence of power relations exercised in the context of the public sector.
- e) Priority to temporary venues instead of permanent buildings in the scope of major sports events is suggested with the purpose of maximizing the legacy potential whilst reducing the long-term negative consequences of venues and other facilities on the environment. By prioritising temporary buildings it is expected that less 'white-elephants' are left after the Games. As the Brazilian case study revealed, sport facilities built for the Pan American Games according to Olympics standards were not having an efficient use post-games, as most of them were being under-utilised or used for other purposes rather than sport (see chapter 6, section 6.3.7). For this reason, it is essential that the planning process takes into account legacy issues from the beginning of the process in order to build

strictly venues and facilities that will have a long-term post-games use. Within this context, whatever venues which are not necessary after the Games should be design to be temporary. The concept of temporary venues is in line with the example set out by the English case study which has placed legacy along with sustainability at the core of the planning process (see chapter 7, section 7.3.4). This recommendation would improve existing planning processes of major sports events by introducing guidance on prioritising the use of temporary venues for the IOC and delivery bodies to incorporate in the planning process in order to contribute to the legacy planning whilst avoiding at the same time that 'white-elephants' are left after the Games.

## **EIA**

*Level of application: guidance; aiming at decision-makers within delivery bodies*

- a) Establishment of weightings for environmental assessment procedures (EIA) in the decision-making process regarding major sports events and associated infrastructure with the purpose of reducing the influence of political and economic pressures. This recommendation is particularly based on the Brazilian case study where political and economical issues were found to be weighted higher than environmental considerations. In order to achieve a more balanced situation in terms of trade offs between economic and environmental considerations and to minimize the influence of political pressures, the establishment of weightings for environmental assessment procedures in the decision-making process is thought to be a helpful solution (see chapters 6 and 8, sections 6.3.2 and 8.3.2). This recommendation aims particularly at decision-makers within delivery bodies of major sports events and it would improve the contribution of environmental assessment procedures, such as EIA, in the decision-making of such events by introducing guidance on the establishment of weightings for environmental assessment procedures in the decision-making process.



*Level of application: guidance; aiming at delivery bodies*

- b) Integration of environmental assessment tools such as EIA not only in the design stage but also to the whole life cycle of major sports events is suggested in order for these tools to be fully incorporated into the decision-making and planning processes while contributing to the environmental management system of such major events. By doing this it may be expected that the perception of EIA as a 'tick box exercise', discussed in chapters 7 and 8 (sections 7.2.2 and 8.2.2), could be changed and the role of environmental assessment procedures as decision-making and planning tools strengthened. This recommendation would improve the contribution of EIA to the planning process by introducing guidance on the integration of EIA to the life cycle of major sports events as part of their environmental management systems.

*Level of application: guidance; aiming at IOC and delivery bodies*

- c) Establishment of a learning network is recommended with the purpose of capturing the lessons learnt from the planning process of each major sports event realised (with particular reference to the EIA process) and making the knowledge available to other major events. London 2012 seems to be addressing this issue by having a learning legacy body which is in charge of recording and transferring the lessons learnt from London 2012 (ODAb, 00:08:34). This recommendation, which could be converted into guidance, aims at the IOC and delivery bodies and it is closely aligned with the substantive role of EIA as a social learning tool discussed in chapters 2 and 8.

It should be highlighted that in the Brazilian context some of these recommendations are already being taken into consideration in the scope of Rio 2016. Federal Law 12.396 has been enacted by the National Congress and signed recently by the President of the Republic (in March 2011) with the purpose of establishing the Olympic Public Authority (*Autoridade Publica Olimpica – APO*) in charge of coordinating the participation of the Union (federal

level), the State of Rio de Janeiro and the Municipality of Rio de Janeiro in the preparation and realization of the Games (Federative Republic of Brazil, 2011). Another example is the Decree 7.258, signed by the President of the Republic in August 2010, which sets up the Brazilian Company of Sport Legacy (*Empresa Brasileira de Legado Esportivo S.A.*) responsible for managing the legacy of the Games (Federative Republic of Brazil, 2010).

Finally, turning the attention back to issue of recommendations, other suggestions are thought to be helpful specifically for the Brazilian context in terms of its regulatory framework for environmental licensing and EIA. The following practical recommendations should be applied at legislation level whilst aiming at the federal government (state and municipals levels of government could subsequently incorporate the changes into their own frameworks for environmental licensing and EIA):

*Level of application: legislation at the federal level*

- a) Inclusion of sport related infrastructure such as stadiums in the list of developments subject to environmental licensing at the federal level. This recommendation is crucial to ensure that environmental licensing and EIA are undertaken for sport related infrastructure. As shown by the Brazilian case study there was much confusion regarding the conduct (or not) of environmental licensing and EIA for venues and sport facilities exactly because these developments are not listed as projects under such procedures. By making this inclusion official, it is expected that the forthcoming major sports events held in the country will not need to spend time on screening the developments that require or not the conduct of environmental licensing and EIA (see chapters 5, 6 and 8, sections 5.3, 6.2.1 and 8.2.1). This recommendation would improve the environmental licensing and EIA systems by changing legislation at the federal level through the inclusion of sport related infrastructure, such as stadiums, as projects subject to environmental licensing and EIA.

- b) Establishment of SEA regulation at the federal level side by side with the environmental licensing and EIA regulations in order to strengthen both instruments and for the fulfilment of the National Policy for the Environment itself. The lack of a SEA regulation in the country represents a major limitation for the implementation of the environmental licensing and EIA systems. By not addressing the environmental consequences of proposed actions (such as policies, plans and programmes) at the strategic level of the decision-making and planning process, environmental licensing and EIA, which are project level based, miss their strategic and wider context that could be provided by the SEA. Therefore the establishment of a SEA regulation at federal level should be seen as a priority in the country in order to fulfil the environmental licensing and EIA systems.
- c) Inclusion of public consultation as a mandatory requirement of the environmental licensing system, extending Wood's view that 'EIA is not EIA without public consultation and participation' (2003, p. 275) towards the environmental licensing. The same could be argued for the licensing system: environmental licensing is not environmental licensing without consultation and participation. As the Brazilian case study has shown, public consultation is likely to be undertaken only for developments that carry out EIA. However, based on a collaborative approach, it is also necessary to expand the conduct of public consultation to the environmental licensing as a whole (not only for the one followed by EIA), with the purpose of creating a more participatory process with the participation of a wide range of stakeholders in line with the communicative rationality and deliberative ethic applied to planning and environmental assessment discussed in chapters 2 and 8. This recommendation would improve the environmental licensing and EIA systems by changing legislation at the federal level through the inclusion of public consultation as a mandatory requirement of both systems.

## **9.5 Recommendations for further research**

This research is just a small step towards the understanding of the role played by environmental impact assessment (EIA) in the decision-making in the planning process of major sports events and related infrastructure. In a wider theoretical context, this research could be taken forward by examining the following issues which are thought to be in need of further research:

- a) Firstly there is still a need for advancing research on the interface between environmental issues and major sports events and related infrastructure. As highlighted in chapter 1 (section 1.1), research on major events has been largely focused on other aspects rather than on environmental considerations. Therefore it is necessary to develop further research on this interface in order to provide an understanding of how environmental issues are considered and affected by major sports events and associated infrastructure. Within the context of environmental assessment procedures, an area that requires research is post monitoring and auditing of predictions and mitigations measures set out by EIA in the scope of major sports events and related infrastructure.
- b) Secondly, the first recommendation also leads to a need to further analyse the interaction between major sports events and environmental assessment procedures (EIA) in order to strengthen their collaboration as decision-making and planning tools to major sports events and related infrastructure. It would be useful to look further at the relationship between planning processes and environmental assessment procedures (EIA) of major sports events individually from the implementation perspective in order to provide a deep understanding within this process. It is also recommended to examine the interface between planning process and environmental assessment procedures from the point of view of governance in terms of how governance issues influence this relationship, as the research has shown governance issues are embedded in planning practices (see chapter 8). As another recommendation, it would be useful to examine in depth the SEA process undertaken for London 2012, as this research concentrated on EIA (see chapter 1, section 1.3). Another area

with scope for research is that of controlling in terms of using monitoring outcomes to revise the planning and implementation processes in order to avoid negative consequences of proposed actions in the context of major sports events and related infrastructure.

c) Finally, there is still a need for research on substantive purposes and outcomes of EIA as discussed in chapter 2 (section 2.2). For this reason further research is recommended particularly emphasizing the contribution of major sports events as vehicles for EIA to achieve its substantive purposes and outcomes in terms of social learning and sustainable development. Within this perspective, major sports events and related infrastructure could provide EIA the opportunity to foster learning experiences through public participation, strengthening the deliberative and participatory role of environmental assessment as a civic science (see chapter 2, section 2.2).

## **9.6 Original contribution to knowledge**

This research has contributed to advance EIA theory by examining the role played by EIA in the decision-making in the planning process of major sports events and related infrastructure. The originality of the study consists in combining EIA and decision-making and applying them to the planning process of major sports events and associated infrastructure.

The general contributions to knowledge which have emerged from this research are organised according to the range of areas studied which have contributions made by this research (e.g. major sports events, EIA). The contributions made by this study to major sports events are as follows: a) development of a theoretical framework that congregates different concepts and theories associated with EIA, decision-making and public participation in environmental assessment; b) development of an adaptable analytical framework based on the theoretical framework with the purpose of informing the process of understanding the decision-making in planning process and the contribution of EIA in the context of major sports events and associated infrastructure; c) development of conceptual models that illustrate the decision-making and

planning processes of the English and Brazilian case studies; d) provision of knowledge for decision-makers within delivery bodies of major sports events who are expected to have a better understanding of the decision-making in the planning process and the contribution of EIA; e) provision of knowledge to the broader sports events literature by examining EIA within the context of major sports events.

In relation to EIA, this study has contributed to: a) advance EIA theory by analysing the role played by EIA in the decision-making in the planning process of major sports events and related infrastructure; b) advance EIA literature towards major sports events and associated infrastructure; c) examine EIA and its contribution to the decision-making in a contemporary context (mega-events) that innovates in relation to traditional development projects which are the main focus of the EIA studies. To conclude, this research has also contributed to both countries where this study was undertaken by providing knowledge on the planning process of both major sports events, from the perspective of decision-making and the contribution of EIA. This knowledge is particularly relevant to the Brazilian context due to the fact that the country will host two major sports events in the forthcoming years (the Football World Cup in 2014 and the Summer Olympic Games in 2016).

## REFERENCES

AGENCO 2010, *Interview with a member of AGENCO*, on 29 January 2010, [digital recording and transcription files in possession of the author].

Alexander, ER 1997, 'A mile or a millimetre? Measuring the "planning theory-practice gap"', *Environmental and Planning B: Planning and Design*, vol. 24, no.1, pp. 3-6.

Allmendinger, P 2009, *Planning theory*, 2<sup>nd</sup> edn, Macmillan, Basingstoke.

Andre, P, Enserink, B, Connor, D & Croal, P 2006, 'Public participation international best practice principles', *Special Publication Series No. 4*, International Association for Impact Assessment, USA.

Azevedo, LN de 2008, 'Including young people's values in heritage conservation policy: the case of Pelotas in southern Brazil', PhD thesis, Oxford Brookes University.

Bartlett, R & Kurian, P 1999, 'The theory of environmental impact assessment: implicit models of policy making', *Policy and Politics*, vol. 27, no. 4, pp. 415-433.

Benson, J 2003, 'What is the alternative? Impact assessment tools and sustainable planning', *Impact Assessment and Project Appraisal*, vol. 21, no. 4, pp. 261-280.

Benson, WLP 2005, '*Determining significant effects within environmental management: a case study of the UK Ministry of Defense*', PhD thesis, Oxford Brookes University.

BioRegional 2011a, *Delivering practical solutions for sustainability*, viewed 7 July 2011, <<http://www.bioregional.com/>>.

BioRegional 2011b, *What is One Planet Living?*, viewed 3 August 2011, <<http://www.bioregional.com/oneplanetliving/what-is-one-planet-living/>>.

BioRegional 2010, *Interview with a member of BioRegional*, on 2 July 2010, [digital recording and transcription files in possession of the author].

Brand, R & Gaffikin, F 2007, 'Collaborative planning in an uncollaborative world', *Planning Theory*, vol. 6, no. 3, pp. 282-313.

Brazilian Institute of Environment and Renewable Natural Resources (*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renovaveis - IBAMA*) 2011, *Instituto Brasileiro do Meio Ambiente e dos Recursos Renovaveis*, viewed 29 March 2011, < <http://www.ibama.gov.br/>>.

Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística - IBGE*) 2011, *Sinopse do censo demografico 2010*, viewed 20 June 2011,

<[http://www.ibge.gov.br/home/estatistica/populacao/censo2010/default\\_sinopse.shtm](http://www.ibge.gov.br/home/estatistica/populacao/censo2010/default_sinopse.shtm)>.

Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística – IBGE*) 2008, *Séries estatísticas e séries históricas*, viewed 27 November 2008, <[http://www.ibge.gov.br/series\\_estatisticas/subtema.php?idsubtema=107](http://www.ibge.gov.br/series_estatisticas/subtema.php?idsubtema=107)>.

Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística – IBGE*) 2005, *Mapas de divisões territoriais*, viewed 20 June 2011, <<http://mapas.ibge.gov.br/divisao/viewer.htm>>.

Brookes, A & Miller, B 2003, 'Striving for more sustainable approaches: response to Benson', *Impact Assessment and Project Appraisal*, vol. 21, no. 4, pp. 269-271.

Brownill, S 2008, *The philosophy of research*, Lecture to PhD research methods training course, year 1.

Bryman, A 2008, *Social research methods*, 3<sup>rd</sup> edn, Oxford University Press, Oxford.

Bryman, A 2004, *Social research methods*, 2<sup>nd</sup> edn, Oxford University Press, Oxford.

Bryman, A 1988, *Quality and quantity in social research*, Unwin Hyman, London.

Caldwell, L 1988, 'Environmental impact analysis (EIA): origins, evolution, and future directions', *Review of Policy Research*, vol. 8, no. 1, pp. 75-83.

Carpenter, J & Brownill, S 2008, 'Approaches to democratic involvement: widening community engagement in the English Planning System', *Planning Theory & Practice*, vol. 9, no. 2, pp. 227-248.

Cashmore, M, Gwilliam, R, Morgan, R, Cobb, D & Bond, A 2004, 'The interminable issue of effectiveness: substantive purposes, outcomes and research challenges in the advancement of environmental impact assessment theory', *Impact Assessment and Project Appraisal*, vol. 22, no. 4, pp. 295-310.

Cashmore, M 2004. 'The role of science in environmental impact assessment: process and procedure versus purpose in the development of theory', *Environmental Impact Assessment Review*, vol. 24, no. 4, pp. 403-426.

CCBT 2010, *Interview with a member of the CCBT residents association*, on 2 February 2010, [digital recording and transcription files in possession of the author].

Chang, J 2006, 'Segmenting tourists to aboriginal cultural festivals: an example in the Rukai tribal area, Taiwan', *Tourism Management*, vol. 27, no. 6, pp. 1224-



1234.

Commission for a Sustainable London 2012 2010a, *Our mission*, viewed 21 September 2010, <<http://www.cslondon.org/>>.

Commission for a Sustainable London 2012 2010b, *What we do*, viewed 21 September 2010, <<http://www.cslondon.org/about/what-we-do/>>.

Commission for a Sustainable London 2012 2011a, *What we do*, viewed 5 August 2011, <<http://www.cslondon.org/about/what-we-do/>>.

Commission for a Sustainable London 2012 2011b, *About*, viewed 5 August 2011, <<http://www.cslondon.org/about/>>.

Commission for a Sustainable London 2012 2011c, *Annual review 2010*, viewed 5 August 2011, <<http://www.cslondon.org/publications//?category=1&did=78>>.

Community Infrastructure Levy (CIL) 2011, *The CIL regulations and DCLG documents*, viewed 20 June 2011, <<http://www.pas.gov.uk/pas/core/page.do?pageld=1243078>>.

CONAMA 2011, *Conselho Nacional do Meio Ambiente*, viewed 29 March 2011, <<http://www.mma.gov.br/port/conama/estr.cfm>>.

CONAMA 1997, *Resolucao CONAMA 237/97*, dispoe sobre a revisao e complementacao dos procedimentos e criterios utilizados para o licenciamento ambiental, viewed 10 April 2008, <<http://www.mma.gov.br/port/conama/legiabre.cfm?codlegi=237>>.

CONAMA 1986, *Resolucao CONAMA 001/86*, dispoe sobre os criterios basicos e diretrizes gerais para a avaliacao de impacto ambiental, viewed 10 April 2008, <<http://www.mma.gov.br/port/conama/legiabre.cfm?codlegi=23>>.

Constitution of the Federative Republic of Brazil of 1988 (*Constituicao da Republica Federativa do Brasil de 1988*), *Constituicao da Republica Federativa do Brasil de 1988*, viewed 15 January 2008, <[http://www.planalto.gov.br/ccivil\\_03/constituicao/constitui%C3%A7ao.htm](http://www.planalto.gov.br/ccivil_03/constituicao/constitui%C3%A7ao.htm)>.

CO-RIOa 2010, *Interview with a member of the Organising Committee for the Rio 2007 Pan American Games (CO-RIO)*, on 7 January 2010, [digital recording and transcription files in possession of the author].

CO-RIOb 2010, *Interview with a member of the Organising Committee for the Rio 2007 Pan American Games (CO-RIO)*, on 14 January 2010, [digital recording and transcription files in possession of the author].

CSL 2010, *Interview with a member of the Commission for a Sustainable London 2012 (CSL)*, on 27 July 2010, [digital recording and transcription files in possession of the author].

Cullingworth, B & Nadin, V 2006, *Town and country planning in the UK*, 13<sup>th</sup> edn, Routledge London.

Curitiba Urban Planning Institute (*Instituto de Planejamento Urbano de Curitiba - IPPUC*) 2009, *IPPUC hoje*, viewed 18 February 2009, <[http://www.ippuc.org.br/ippuc/index\\_ippuc2001.htm](http://www.ippuc.org.br/ippuc/index_ippuc2001.htm)>.

Currie, G & Shalaby AS 2012, 'Synthesis of transport planning approaches for the world's largest events', *Transport Reviews*, vol. 32, no. 1, pp. 113-136.

Daniels, MJ 2007, 'Central place theory and sport tourism impacts', *Annals of Tourism Research*, vol. 34, no. 2, pp. 332-347.

DCMS 2010, *Interview with a member of the Department for Culture, Media and Sport (DCMS)*, on 23 July 2010, [digital recording and transcription files in possession of the author].

Department for Communities and Local Government (DCLG) 2009, *Planning Policy Statements*, viewed 24 April 2009, <from: <http://www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/planningpolicystatements/>>.

Department for Communities and Local Government (DCLG) 2008, *Planning Policy Statement 12*, viewed 25 April 2009, <<http://www.communities.gov.uk/publications/planningandbuilding/pps12sp>>.

Department for Communities and Local Government (DCLG) 2004, *Planning Policy Statement 11*, viewed 25 April 2009, <<http://www.communities.gov.uk/publications/planningandbuilding/pps11spatial>>.

Department for Culture, Media and Sport (DCMS) 2009, *Department for Culture, Media and Sport*, viewed 21 April 2009, <<http://www.culture.gov.uk/>>.

Dror, Y 1964, 'Muddling through – 'science' or inertia', *Public Administration Review*, vol. 24, pp. 153-157.

EIA Consultancy 2010, *Interview with a member of Atkins*, on 29 July 2010, [digital recording and transcription files in possession of the author].

Elling, B 2009, 'Rationality and effectiveness: does EIA/SEA treat them as synonyms?', *Impact Assessment and Project Appraisal*, vol. 27, no. 2, pp. 121-131.

Environmentalist a 2010, *Interview with an environmentalist*, on 15 January 2010, [digital recording and transcription files in possession of the author].

Environmentalist b 2010, *Interview with an environmentalist*, on 28 January 2010, [digital recording and transcription files in possession of the author].

Ernst & Young Brazil 2010, *Interview with a member of the Ernst & Young Brazil*, on 18 January 2010, [digital recording and transcription files in possession of the author].

Ernst & Young Brazil n.d, *Análise de impactos dos Jogos Pan Americanos do Rio 2007*, viewed 10 December 2009, <[http://www.cob.org.br/sobre\\_cob/relatorios\\_pan/analise\\_de\\_impactos.pdf](http://www.cob.org.br/sobre_cob/relatorios_pan/analise_de_impactos.pdf)>.

Etzioni, A 1967, 'Mixed-scanning: a 'third' approach to decision-making', *Public Administration Review*, vol. 27, no. 5, pp. 385-392.

Europa World Year Book 2008, *Volume 1: international organizations and countries (Afghanistan – Jordan)*, 49<sup>th</sup> edn., Routledge, London.

European Commission 1985, *Directive 85/337*. Brussels, viewed 19 September 2009, <<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31985L0337:EN:NOT>>.

Federal Public Ministry 2011, *Sobre a instituição*, viewed 7 July 2011, <<http://www.pgr.mpf.gov.br/conheca-o-mpf/sobre-a-instituicao>>.

Federative Republic of Brazil 2011, *Law n. 12396*, de 21 de Março de 2011. Ratifica o Protocolo de Intenções firmado entre a União, o Estado do Rio de Janeiro e o Município do Rio de Janeiro, com a finalidade de constituir consórcio público, denominado Autoridade Pública Olímpica – APO, viewed 15 January 2011, <<http://www4.planalto.gov.br/legislacao/legislacao-1/decretos1/decretos1/2010#content>>.

Federative Republic of Brazil 2010, *Decree n. 7258*, de 5 de Agosto de 2010. Cria a Empresa Brasileira de Legado Esportivo S.A. - BRASIL 2016, especifica a constituição inicial de seu capital social, e dá outras providências, viewed 15 January 2011, <<http://www4.planalto.gov.br/legislacao/legislacao-1/decretos1/decretos1/2010#content>>.

Federative Republic of Brazil 2001, *Law n. 10257*, de 10 de Julho de 2001. Regulamenta os arts. 182 e 183 da Constituição Federal, estabelece diretrizes gerais da política urbana e dá outras providências, viewed 10 April 2008, <[http://www.planalto.gov.br/ccivil\\_03/LEIS/LEIS\\_2001/L10257.htm](http://www.planalto.gov.br/ccivil_03/LEIS/LEIS_2001/L10257.htm)>.

Federative Republic of Brazil 1998, *Law n. 9605*, de 12 de Fevereiro de 1998. Dispõe sobre as sanções penais e administrativas derivadas de condutas e atividades lesivas ao meio ambiente, e dá outras providências, viewed 4 July 2011, <<http://www.mma.gov.br/port/conama/legipesq.cfm?tipo=1&numero=9605&ano=1998&texto=>>>.

Federative Republic of Brazil 1981, *Law n. 6938*, de 31 de Agosto de 1981. Dispõe sobre a Política Nacional do Meio Ambiente, seus fins e mecanismos de formulação e aplicação, e da outras providencias, viewed 4 July 2011, <[http://www.planalto.gov.br/ccivil\\_03/leis/L6938.htm](http://www.planalto.gov.br/ccivil_03/leis/L6938.htm)>.

Fernandes, E 2003, *A new statute for Brazilian cities*, viewed 4 November 2008, <[http://portal.unesco.org/shs/en/files/6104/10928441881city\\_statute.pdf/city\\_statute.pdf](http://portal.unesco.org/shs/en/files/6104/10928441881city_statute.pdf/city_statute.pdf)>.

FIA 2010, *Interview with a member of the FIA Foundation*, on 27 January 2010, [digital recording and transcription files in possession of the author].

FIA n.d, *Relatorio estatistico FIA projeto Rio 2007*.

Filmer, P, Jenks, C, Seale, C, Thoburn, N & Walsh, D 2004, 'Developments in social theory', in *Researching society and culture*, ed C Seale, 2<sup>nd</sup> edn, Sage, London, pp. 33-46.

Flyvbjerg, B & Richardson, T 2002, 'Planning and Foucault: in search of the dark side of planning theory', in *Planning futures: new directions for planning theory*, eds P Allmendinger & M Tewdwr-Jones, Routledge, London, pp. 44-62.

Flyvbjerg, B 1998, *Rationality and power: democracy in practice*, University of Chicago Press, London.

FPM 2010, *Interview with a member of the Federal Public Ministry*, on 2 February 2010, [digital recording and transcription files in possession of the author].

Funk, D & Bruun, T 2007, 'The role of socio-psychological and culture-education motives in marketing international sport tourism: a cross-cultural perspective', *Tourism Management*, vol. 20, no. 3, pp. 806-819.

Glasson, J, Therivel, R & Chadwick, A 2005. *Introduction to environmental impact assessment*, 3<sup>rd</sup> edn, Routledge, London.

Glasson, J, Therivel, R & Chadwick, A 1999, *Introduction to environmental impact assessment*, 2<sup>nd</sup> edn, UCL Press, London.

Glasson, J 1999, 'The first 10 years of the UK EIA system: strengths, weaknesses, opportunities and threats', *Planning Practice and Research*, vol. 14, no. 3, pp. 363-375.

Glasson, J & Salvador, NNB 2000, 'EIA in Brazil: a procedures-practice gap. A comparative study with reference to the European Union, and especially the UK', *Environmental Impact Assessment Review*, vol. 20, no. 2, pp. 191-225.

Glasson, J, Therivel, R, Weston, J, Wilson, E & Frost, R 1997, 'EIA – learning from experience: changes in the quality of environmental impact statements for

the UK planning projects', *Journal of Environmental Planning and Management*, vol. 40, no. 4, pp. 451-464.

Government Office for the English Regions 2009a, *Regional planning: the national picture*, viewed 22 April 2009, <<http://www.gos.gov.uk/planning/regionalplanning/?a=42496>>.

Government Office for the English Regions 2009b, *Local government national picture*, viewed 22 April 2009, <<http://www.gos.gov.uk/localgov/?a=42496>>.

Government Office for the English Regions 2009c, *Planning: the national picture*, viewed 22 April 2009, <<http://www.gos.gov.uk/planning/?a=42496>>.

Government Office for the English Regions 2009d, *About the network*, viewed 21 April 2009, <from: <http://www.gos.gov.uk/aboutusnat/>>.

Government Office for the English Regions 2009e, *Development plans: the national picture*, viewed 22 April 2009, <<http://www.gos.gov.uk/planning/devplans/?a=42496>>.

Greater London Authority 2012a, *Planning*, viewed 28 March 2012, <<http://www.london.gov.uk/priorities/planning>>.

Greater London Authority 2012b, *Who runs London*, viewed 28 March 2012, <<http://www.london.gov.uk/who-runs-london>>.

Greater London Authority 2012c, *Key agencies*, viewed 28 March 2012, <<http://www.london.gov.uk/priorities/london-2012/key-agencies>>.

Gursoy, D & Kendall, KW 2006, 'Hosting mega events modelling local's support', *Annals of Tourism Research*, vol. 33, no. 3, pp. 603-623.

Gursoy, D, Kim, K & Uysal, M 2004, 'Perceived impacts of festivals and special events by organizers: an extension and validation', *Tourism Management*, vol. 25, no. 2, pp. 171-178.

Hall C 1989, 'The definition and analysis of hallmark tourist events', *Geojournal*, vol. 19, no. 3, pp. 263-268.

Harris, N 2002, 'Collaborative planning from theoretical foundations to practice forms', in *Planning futures new directions for planning theory*, eds P Allmendinger & M Tewdwr-Jones, Routledge, London, pp. 20-43.

Hartley, N & Wood, C 2005, 'Public participation in environmental impact assessment – implementing the Aarhus Convention', *Environmental Impact Assessment Review*, vol. 25, no. 4, pp. 319-340.

Healey, P 2006, *Collaborative planning: shaping places in fragmented societies*, 2<sup>nd</sup> edn, Macmillan, Basingstoke.

Healey, P 2003, 'Collaborative planning in perspective', *Planning Theory*, vol. 2, no. 2, pp. 101-123.

Healey, P 1997, *Collaborative planning: shaping places in fragmented societies*, Macmillan, Basingstoke.

Holder, J 2004, *Environmental assessment the regulation of decision-making*, Oxford University Press, Oxford.

Hollinger, R 1998, 'What is the Enlightenment?', In *Social science in question*, ed M Smith, Sage, London, pp. 71-72.

INEA 2011, *Informacoes gerais*, viewed 12 August 2011, <<http://www.inea.rj.gov.br/fma/licenciamento-apresentacao.asp>>.

INEA, 2010, *Competencias*, viewed 14 January 2010, <<http://200.20.53.7/Ineaportal/Conteudo.aspx?ID=C6BBA8C1-DB9E-4B4B-94AF-67947333FD03>>.

INEA 2010, *Interview with a member of the Rio de Janeiro Institute for the Environment (INEA)*, on 25 January 2010, [digital recording and transcription files in possession of the author].

Infrastructure Planning Commission (IPC) 2011a, *Our role*, viewed 20 June 2011, <<http://infrastructure.independent.gov.uk/who-we-are/our-role/>>.

Infrastructure Planning Commission (IPC) 2011b, *Infrastructure Planning Commission*, viewed 20 June 2011, <<http://infrastructure.independent.gov.uk/>>.

Infrastructure Planning Commission (IPC) 2011c, *Introducing the Infrastructure Planning Commission*, viewed 20 June 2011, <<http://infrastructure.independent.gov.uk/wp-content/uploads/2009/10/Introducing-the-IPC-What-we-do-and-how-you-can-get-involved.pdf>>.

Jay, S, Jones, C, Slinn, P & Wood, C 2007, 'Environmental impact assessment: retrospect and prospect', *Environmental Impact Assessment Review*, vol. 27, no. 4, pp. 287-300.

Kim, H, Borges, MC & Chon, J 2006, 'Impacts of environmental values on tourism motivation: the case of FICA, Brazil', *Tourism Management*, vol. 27, no. 5, pp. 957-967.

Kim, N & Chalip, L 2004, 'Why travel to the FIFA World Cup? Effects of motives, background, interest, and constraints', *Tourism Management*, vol. 25, no. 6, pp. 695-708.

Kim, SS & Morrision, AM 2005, 'Change of images of South Korea among foreign tourists after the 2002 FIFA World Cup', *Tourism Management*, vol. 26, no. 2, pp. 233-247.

Kim, SS & Petrick, JF 2005, 'Resident's perceptions on impacts of the FIFA 2002 World Cup: the case of Seoul as a host city', *Tourism Management*, vol. 26, no. 1, pp. 25-38.

Kirchhoff, D, Montano, M, Ranieri, VEL, Oliveira, ISD, Doberstein, B & Souza, MP 2007, 'Limitations and drawbacks of using Preliminary Environmental Reports (PERs) as an input to Environmental Licensing in Sao Paulo State: a case study on natural gas pipeline', *Environmental Impact Assessment Review*, vol. 27, no. 4, pp. 301-318.

Lagoa Viva 2010, *Interview with a member of the Lagoa Viva NGO*, on 20 January 2010, [digital recording and transcription files in possession of the author].

Lan, T 2009, 'A retrospective view of Olympic structures in China', *International Journal of Space Structure*, vol. 24, no. 2, pp. 79-86.

Lawrence, DP 2003, *Environmental impact assessment practical solutions to recurrent problems*, John Wiley & Sons, New Jersey.

Lee, H & Graefe, AR 2003, 'Crowding at an arts festival: extending crowding models to the frontcountry', *Tourism Management*, vol. 24, no. 1, pp. 1-12.

Lee, CK & Taylor, T 2005, 'Critical reflections on the economic impact assessment of a mega-event: the case of 2002 FIFA World Cup', *Tourism Management*, vol. 26, no. 4, pp. 595-603.

Lee, CK, Lee, YK & Lee B 2005, 'Korea's destination image formed by the 2002 World Cup', *Annals of Tourism Research*, vol. 32, no. 4, pp. 839-858.

Lee, CK, Lee, YK & Wicks, BE 2004, 'Segmentation of festival motivation by nationality and satisfaction', *Tourism Management*, vol. 25, no. 1, pp. 61-70.

Leknes, E 2001, 'The role of EIA in the decision-making process', *Environmental Impact Assessment Review*, vol. 21, no. 4, pp. 309-334.

Lima, LH & Magrini, A 2010, 'The Brazilian Audit Tribunal's role in improving the federal environmental licensing process', *Environmental Impact Assessment Review*, vol. 30, no. 2, pp. 108-115.

Lindblom, CE 1980, *The policy making process*, 2<sup>nd</sup> edn, Prentice-Hall, Englewood Cliffs.

LOCOG 2010, *Interview with a member of the London 2012 Organising Committee of the Olympic Games and Paralympic Games (LOCOG)*, on 16 July 2010, [digital recording and transcription files in possession of the author].

London 2012 2012a, *The people delivering the Games*, viewed 28 march 2012, <<http://www.london2012.com/about-us/the-people-delivering-the-games>>.

London 2012 2012b, *Funding the Games*, viewed 28 march 2012, <<http://www.london2012.com/funding-the-games>>.

London 2012 2011a, *The Olympic Delivery Authority*, viewed 7 July 2011, <<http://www.london2012.com/about-us/the-people-delivering-the-games/the-olympic-delivery-authority/>>.

London 2012 2011b, *Statutory and community consultation*, viewed 7 July 2011, <<http://www.london2012.com/planning/statutory-and-community-consultation.php>>.

London 2012 2011c, *The ODA Planning Committee*, viewed 7 July 2011, <<http://www.london2012.com/planning/planning-committee.php>>.

London 2012 2011d, *The London 2012 Organising Committee*, viewed 7 July 2011, <<http://www.london2012.com/about-us/the-people-delivering-the-games/the-london-organising-committee/>>.

London 2012 2011e. *Making it happen*, viewed 27 January 2011, <<http://www.london2012.com/making-it-happen/>>.

London 2012 2010, *Venues*, viewed 7 September 2010, <http://www.london2012.com/venues>.

Lorde, T, Greenidge, D & Devonish, D 2011, 'Local residents' perceptions of the impacts of the ICC Cricket World Cup 2007 on Barbados: Comparisons of pre- and post-games', *Tourism Management*, vol. 32, no. 2, pp. 349-356.

Ma, SC, Egan, D, Rotherham, I & Ma, SM 2011, 'A framework for monitoring during the planning stage for a sports megaevent', *Journal of Sustainable Tourism*, vol. 19, no. 1, pp. 79-96.

Maricato, E 2006, 'O Ministerio das Cidades e a Politica Nacional de Desenvolvimento Urbano'. *Políticas Sociais – acompanhamento e analise* 12, pp. 211-220, viewed 7 October 2008, <[http://www.ipea.gov.br/sites/000/2/publicacoes/bpsociais/bps\\_12/ensaio\\_2\\_ministerio.pdf](http://www.ipea.gov.br/sites/000/2/publicacoes/bpsociais/bps_12/ensaio_2_ministerio.pdf)>.

Minis, I & Tsamboulas, D 2008, 'Contingency planning and war gaming for the transport operation of the Athens 2004 Olympic Games', *Transport Reviews*, vol. 28, no. 2, pp. 259-280.

Ministry of Cities 2009, *Terra urbanizada para todos*, viewed 18 February 2009, <<http://www.cidades.gov.br/secretarias-nacionais/programas-urbanos>>.

Ministry of Cities 2008a, *O direito a cidade*, viewed 2 October 2008, <<http://www.cidades.gov.br/ministerio-das-cidades>>.



Ministry of Cities 2008b, *3a Conferencia Nacional das Cidades*, viewed 3 December 2008, <<http://www.cidades.gov.br/conselho-das-cidades/conferencias-das-cidades/3a-conferencia-das-cidades/>>.

Ministry of Cities 2004, *Politica Nacional de Desenvolvimento Urbano*, viewed 2 October 2008, <<http://www.cidades.gov.br/ministerio-das-cidades/biblioteca/cadernos-do-ministerio-das-cidades?searchterm=cadernos+>>.

MSE 2010, *Interview with a member of the Rio de Janeiro Municipal Secretariat for the Environment (MSE)*, on 13 January 2010, [digital recording and transcription files in possession of the author].

Municipal Secretariat for the Environment, *Licenciamento Ambiental Municipal*, viewed 5 January 2010, <http://www.rio.rj.gov.br/web/smac/exibeconteudo?article-id=148117>.

ODAA 2010, *Interview with a member of the Olympic Delivery Authority (ODA)*, on 22 June 2010, [digital recording and transcription files in possession of the author].

ODAb 2010, *Interview with a member of the Olympic Delivery Authority (ODA)*, on 22 June 2010, [digital recording and transcription files in possession of the author].

ODA CR 2010, *Interview with a member of the Olympic Delivery Authority Community Relations (ODA CR)*, on 26 July 2010, [digital recording and transcription files in possession of the author].

ODA PCa 2010, *Interview with a member of the Olympic Delivery Authority Planning Committee (ODA PC)*, on 30 July 2010, [digital recording and transcription files in possession of the author].

ODA PCb 2010, *Interview with a member of the Olympic Delivery Authority Planning Committee (ODA PC)*, on 24 August 2010, [digital recording and transcription files in possession of the author].

ODA PDT 2010, *Interview with a member of the Olympic Delivery Authority Planning Decisions Team (ODA PDT)*, on 9 July 2010, [digital recording and transcription files in possession of the author].

Official Report XV Pan American Games and III Parapan American Games. *Official Report XV Pan American Games and III Parapan American Games*, viewed 10 December 2009, <Official Report XV Pan American Games and III Parapan American Games>.

Olympic Movement 2011, *Olympism in action*, viewed 7 August 2011, <<http://www.olympic.org/olympism-in-action>>.

Olympic Park Legacy Company 2011a, *The best of London all in one place*, viewed 7 July 2011, <<http://www.legacycompany.co.uk/>>.

Olympic Park Legacy Company 2011b, *Olympic Park Legacy Company*, London, viewed 26 January 2011, <<http://www.legacycompany.co.uk/>>.

Olympic Park Legacy Company 2010, *The best of London all in one place*, viewed 10 October 2010, <<http://www.legacycompany.co.uk/>>.

OPLC 2010, *Interview with a member of the Olympic Park Legacy Company (OPLC)*, on 12 July 2010, [digital recording and transcription files in possession of the author].

OPMP 2010, *Interview with a member of AECOM/EDAM*, on 6 July 2010, [digital recording and transcription files in possession of the author].

O'Riordan, T 2001, 'Environmental science on the move', in *Environmental science for environmental management*, 2<sup>nd</sup> edn, ed T O'Riordan, Prentice-Hall, Harlow, pp. 1-27.

Pennington, M 2002, 'A Hayekian liberal critique of collaborative planning', in *Planning futures new directions for planning theory*, eds P Allmendinger & M Tewdwr-Jones, Routledge, London, pp. 187-205.

Persson, J 2006, 'Theoretical reflections on the connection between environmental assessment methods and conflict', *Environmental Impact Assessment Review*, vol. 26, no. 7, pp. 605-613.

Petts, J 1999, 'Public participation and environmental impact assessment', in *Handbook of environmental impact assessment, volume 1, environmental impact assessment: process, methods and potential*, ed J Petts, Blackwell Science, Oxford, pp. 145-177.

Planning Act 2008, *Planning Act 2008*, viewed 20 June 2011, <[http://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga\\_20080029\\_en.pdf](http://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga_20080029_en.pdf)>.

Planning and Compulsory Purchase Act 2004a, *Planning and Compulsory Purchase Act 2004*, viewed 22 April 2009, <[http://www.opsi.gov.uk/ACTS/acts2004/ukpga\\_20040005\\_en\\_1](http://www.opsi.gov.uk/ACTS/acts2004/ukpga_20040005_en_1)>.

Planning and Compulsory Purchase Act 2004b, *Major infrastructure projects*, viewed 20 April 2009, <[http://www.opsi.gov.uk/ACTS/acts2004/ukpga\\_20040005\\_en\\_5#pt4-pb4](http://www.opsi.gov.uk/ACTS/acts2004/ukpga_20040005_en_5#pt4-pb4)>.

Planning and Compulsory Purchase Act 2004c, *Regional Spatial Strategy*, viewed 20 April 2009, <[http://www.opsi.gov.uk/ACTS/acts2004/ukpga\\_20040005\\_en\\_2#pt1-pb1-l1g1](http://www.opsi.gov.uk/ACTS/acts2004/ukpga_20040005_en_2#pt1-pb1-l1g1)>.

Planning Help 2011, *The planning system*, viewed 13 September 2011, <<http://www.planninghelp.org.uk/planning-system>>.

Press conference on the Beijing capital international airport T3 Terminal 2008a, *Chinese Law & Government*, vol. 41, no. 6, pp. 42-53.

Proceedings of the Institution of Civil Engineers 2011a, 'Delivering London 2012: the Olympic Stadium', *Civil Engineering*, vol. 164, no. 6, pp. 37-43.

Proceedings of the Institution of Civil Engineers 2011b, 'Delivering London 2012: the Velodrome', *Civil Engineering*, vol. 164, no. 6, pp. 51-58.

Proceedings of the Institution of Civil Engineers 2011c, 'Delivering London 2012: the Aquatics Centre', *Civil Engineering*, vol. 164, no. 6, pp. 44-50.

Proceedings of the Institution of Civil Engineers 2011d, 'Delivering London 2012: utilities', *Civil Engineering*, vol. 164, no. 6, pp. 17-22.

Proceedings of the Institution of Civil Engineers 2011e, 'Delivering London 2012: parklands and waterways', *Civil Engineering*, vol. 164, no. 6, pp. 30-36.

Proceedings of the Institution of Civil Engineers 2011f, 'Delivering London 2012: structures, bridges and highways', *Civil Engineering*, vol. 164, no. 6, pp. 23-29.

Publications of Parliament 2007, *The development and role of the regions*, viewed on 20 June 2011, <http://www.publications.parliament.uk/pa/cm200607/cmselect/cmcomloc/352/35204.htm>.

Reid, R L 2011, 'London's Olympic Stadium designed to be dismantled', *Civil Engineering*, vol. 81, no. 5, pp. 14-17.

Report P1 2008, *Inventario de emissões de gases de efeito estufa nos Jogos Pan Americanos de 2007*.

Richardson, T 2005, 'Environmental assessment and planning theory: four short stories about power, multiple rationality, and ethics', *Environmental Impact Assessment Review*, vol. 25, no. 4, pp. 341-365.

RIMA 2003, *Relatorio de Impacto Ambiental (RIMA) da Vila Pan Americana*, (SERVEC), Rio de Janeiro.

Rio 2016 2010, *Interview with a member of the Rio 2016 Organising Committee*, on 25 January 2010, [digital recording and transcription files in possession of the author].

Rio de Janeiro City Council 2011, *Municipal Law n. 111*, de 1 de Fevereiro de 2011. Dispõe sobre a Política Urbana e Ambiental do Município, institui o Plano Diretor de Desenvolvimento Urbano Sustentável do Município do Rio de Janeiro e dá outras providências, viewed 6 August 2011, <<http://200.141.78.78/dlstatic/10112/139339/DLFE-229591.pdf/PlanoDiretor.pdf>>.

Rio de Janeiro City Council 2008, *Rio 2007 Pan American Games and III Parapan American Games Report*.

Ritchie, JRB 1984, 'Assessing the impact of hallmark events: conceptual and research issues', *Journal of Travel Research*, vol. 22, no. 1, pp. 2-11.

Robson, C 2002, *Real world research*, 2<sup>nd</sup> edn, Blackwell, Oxford.

Rolnik, R 2006, 'A construção de uma política fundiária e de planejamento urbano para o País – avanços e desafios'. *Políticas Sociais – acompanhamento e análise* 12, pp.199-210, viewed 7 October 2008, <[http://www.ipea.gov.br/sites/000/2/publicacoes/bpsociais/bps\\_12/ensaio1\\_raquel.pdf](http://www.ipea.gov.br/sites/000/2/publicacoes/bpsociais/bps_12/ensaio1_raquel.pdf)>.

Rydin, Y 2011, *The purpose of planning – creating sustainable towns and cities*, The Policy Press, Bristol.

Rydin, Y 2003, *Urban and environmental planning in the UK*, 2<sup>nd</sup> edn, Palgrave Macmillan, Basingstoke.

Rydin, Y & Pennington, M 2000, 'Public participation and local environmental planning: the collective action problem and the potential of social capital', *Local Environment*, vol. 5, no. 2, pp. 153-169.

Sadler, B 1996, *Environmental assessment in a changing world: evaluating practice to improve performance*, (Canadian Environmental Assessment Agency and International Association for Impact Assessment, Ministry of Supply Services), Final Report of the International Study of the Effectiveness of Environmental Assessment, Ottawa.

Sanchez, LE 2006, *Avaliacao de Impacto Ambiental: conceitos e metodos*, Oficina de Textos, São Paulo.

SEA 2010, *Interview with a member of the State Secretariat for the Environment (SEA)*, on 14 January 2010, [digital recording and transcription files in possession of the author].

Seale, C 2004, 'Validity, reliability and the quality of research', in *Researching society and culture*, ed C Seale, 2<sup>nd</sup> edn, Sage, London, pp.71-84.

SERIOa 2010, *Interview with a member of the Special Secretariat for the Rio 2007 Pan American Games (SERIO)*, on 6 January 2010, [digital recording and transcription files in possession of the author].

SERIOb 2010, *Interview with a member of the Special Secretariat for the Rio 2007 Pan American Games (SERIO)*, on 6 January 2010, [digital recording and transcription files in possession of the author].

SERIOc 2010, *Interview with a member of the Special Secretariat for the Rio 2007 Pan American Games (SERIO)*, on 22 January 2010, [digital recording and transcription files in possession of the author].

SERIOd 2010, *Interview with a member of the Special Secretariat for the Rio 2007 Pan American Games (SERIO)*, on 21 January 2010, [digital recording and transcription files in possession of the author].

SERIOe 2010, *Interview with a member of the Special Secretariat for the Rio 2007 Pan American Games (SERIO)*, on 14 January 2010, [digital recording and transcription files in possession of the author].

SERVEc 2010, *Interview with a member of SERVEC*, on 1 February 2010, [digital recording and transcription files in possession of the author].

Shepherd, A & Bowler, C 1997, 'Beyond the requirements: improving public participation in EIA', *Journal of Environmental Planning and Management*, vol. 40, no. 6, pp. 725-738.

Simon, H 1976, *Administrative behaviour*, 3<sup>rd</sup> edn, Free Press, London.

Special plan for construction and management of transportation 2008b, *Chinese Law & Government*, vol. 41, no. 4, pp. 62-74.

State of Rio de Janeiro 2009, *State Decree n. 42159*, de 2 de Dezembro de 2009. Dispoe sobre o sistema de licenciamento ambiental e da outras providencias, viewed 8 August 2011, <<http://200.20.53.7/ineaportal/Conteudo.aspx?ID=04D67426-5787-4FBE-B7BA-ACAFB12E75AF>>.

State of Rio Janeiro 2007, *Secretaria de Estado de Planejamento e Gestao - Legislacao*, viewed 15 January 2011, <<http://www.rj.gov.br/web/seplag/exibeConteudo?article-id=203596>>.

State of Rio de Janeiro 1988, *State Law n. 1356*, de 3 de Outubro de 1988. Dispoe sobre os procedimentos vinculados a elaboracao, analise e aprovacao dos estudos de impacto ambiental, viewed 12 December 2009, <[http://www0.rio.rj.gov.br/smac/up\\_arq/LEI%201356.pdf](http://www0.rio.rj.gov.br/smac/up_arq/LEI%201356.pdf)>.

Tashakkori, A & Teddlie, C 1998, *Mixed methodology: combining qualitative and quantitative approaches*, Sage, London.

TCU, 2007, *Cartilha de licenciamento ambiental*, Tribunal de Contas da Uniao, Brasilia.

Tewdwr-Jones, M & Allmendinger P 2002, 'Conclusion: communicative planning, collaborative planning and the post-positivist planning theory landscape', in *Planning futures: new directions for planning theory*, eds P Allmendinger & M Tewdwr-Jones, Routledge, Oxon, pp. 206-216.

Tinker, L, Cobb, D, Bond, A & Cashmore, M 2005, 'Impact mitigation in environmental impact assessment: paper promises or the basis of consent conditions?', *Impact Assessment and Project Appraisal*, vol. 23, no. 4, pp. 265-280.

Valle, CE 2004, *Qualidade e gestão ambiental*, 5th edn, SENAC, São Paulo.

Vanclay, F 2003, 'Conceptual and methodological advances in social impact assessment', in *The international handbook of social impact assessment. Conceptual and methodological advances*, eds H A Becker & F Vanclay, Edward Elgar Publishing Limited, Glos, pp. 1-9.

Wallington, T, Bina, O & Thissen, W 2007, 'Theorising strategic environmental assessment: fresh perspectives and future challenges', *Environmental Impact Assessment Review*, vol. 27, no. 7, pp. 569-584.

Weston, J 2010, 'EIA theories – all Chinese whispers and no critical theory', *Journal of Environmental Assessment Policy and Management*, vol. 12, no. 4, pp. 357-374.

Weston, J 2006, 'Common sense in environmental impact assessment – it cannot be avoided', *Impact Assessment and Project Appraisal*, vol. 24, no. 1, pp. 12-14.

Weston, J 2004, 'EIA in a risk society', *Journal of Environmental Planning and Management*, vol. 47, no. 2, pp. 313-325.

Weston, J 2003, 'Is there a future for EIA? Response to Benson', *Impact Assessment and Project Appraisal*, vol. 21, no. 4, pp. 278-280.

Weston, J 2000, 'EIA, decision-making theory and screening and scoping in the UK practice', *Journal of Environmental Planning and Management*, vol. 43, no. 2, pp. 185-203.

Weston, J 1997, 'Consultation and the conflict of interests in the EIA process', in *Planning and environmental impact assessment in practice*, ed J Weston, Longman, Harlow, pp. 93-119.

Wood, C 2003, *Environmental impact assessment a comparative review*, 2<sup>nd</sup> edn, Pearson Education, Harlow.

Wood, G 2008, 'Thresholds and criteria for evaluating and communicating impact significance in environmental statements: 'see no evil, hear no evil, speak no evil'', *Environmental Impact Assessment Review*, vol. 28, no. 1, pp. 22-38.

Wood, G 2000, 'Ten years on: an empirical analysis of UK environmental statement submissions since the implementation of Directive 85/337/EEC', *Journal of Environmental Planning and Management*, vol. 43, no. 5, pp. 721-747.

Wood, G 1999, 'Post-development auditing of EIA predictive techniques: a spatial analytical approach', *Journal of Environmental Planning and Management*, vol. 42, no. 5, pp. 671-689.

Wood, G & Becker, J 2005, 'Discretionary judgment in local planning authority decision making: screening development proposals for environmental impact assessment', *Journal of Environmental Planning and Management*, vol. 48, no. 3, pp. 349-371.

Wood, G, Glasson, J & Becker, J 2006, 'EIA scoping in England and Wales: practitioner approaches, perspectives and constraints', *Environmental Impact Assessment Review*, vol. 26, no. 3, pp. 221-241.

World Commission on Environment and Development (WCED) 1987, *Our common future*, University Press, Oxford.

World Health Organisation 2011, *Health impact assessment*, viewed 13 September 2011, <<http://www.who.int/hia/en/>>.

WWF 2011, *What we do and why*, viewed 7 July 2011, <[http://www.wwf.org.uk/what\\_we\\_do/index.cfm](http://www.wwf.org.uk/what_we_do/index.cfm)>

WWF 2010, *Interview with a member of the WWF in the UK*, on 29 July 2010, [digital recording and transcription files in possession of the author].

Yin, RK 2009, *Case study research: design and methods*, 4<sup>th</sup> edn, Sage Publications, London.

Zhou, JY & Ap, J 2008, 'Residents' perceptions towards the Beijing 2008 Olympic Games', *Journal of Travel Research*, vol. 48, no. 1, pp. 78-91.

## **APPENDIX A**

### **INTERVIEW SCHEDULE**

1. How are/were the environmental issues considered in the planning process?
2. How is/was the EIA process for London 2012/Rio 2007 being conducted?  
Which projects are carrying/carried out EIA?
3. Is SEA being carried out hand-in-hand with EIA?
4. Are/were there other environmental assessment tools being used, such as socio-economic impacts, health impacts, to assess the environment as a whole?
5. Were there any changes in projects due to EIA/SEA recommendations? Are there any written evidences?
6. How is/was the implementation of EIA/SEA regulations in the context of London 2012/Rio 2007?
7. How is/were the implementation of mitigation measures set out by the EIA/SEA carried out? Is there any written evidence?
8. Could you tell me about the enforcement process related to the implementation of EIA/SEA regulations and decisions?
9. Could you tell me about the public consultation? How was the process? Were opinions taken into consideration? Is there any written evidence?
10. Is/was the decision-making process in the context of London 2012/Rio 2007 being influenced/informed by the EIA/SEA? Is there any written evidence?
11. What is/was the weight of environmental issues in the decision-making process?
12. Which other factors influence the decision-making process?
13. In your opinion, do EIA/SEA and other environmental assessment tools help the decision-making process?
14. In your opinion, are EIA/SEA and other environmental assessment tools positive procedures in the planning process of major sports events?
15. Could you comment the difficulties and successes regarding the conduct of environmental assessment procedures and public participation?



16. Could you tell me about the legacy planning? How do you perceive the legacy of the Games in terms of sport facilities and urban infrastructure?

## **APPENDIX B**

### **PARTICIPANT INFORMATION SHEET**

**Research Title:** Environmental impact assessment (EIA/SEA) and the planning processes of major sports events: a comparative analysis between the London 2012 Olympic Games and the Rio 2007 Pan American Games.

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

#### **What is the purpose of the study?**

This survey is part of a PhD research which is being undertaken by Gisele Pereira. The aim of this study is to provide a comparative analysis of planning processes and environmental assessment procedures (EIA/SEA) within the context of major sport tourism events in the UK and Brazil. The major sports tourism events chosen as case studies for this research are the Olympic Games of London 2012 (UK) and the Pan American Games of Rio de Janeiro 2007 (Brazil). In order to achieve the aim, interviews will be conducted with key actors from both countries.

#### **Why have I been invited to participate?**

You have been invited to participate of this research because you were identified as a key actor, which means you might have important information and opinions which will help me to achieve the aim of this study. Key actors were chosen from the following spheres: government, private sector, organising committees, NGOs, local communities from both countries.

#### **Do I have to take part?**

Your participation would be very beneficial for my study as your knowledge, opinions and point of views would help greatly to build up my thesis and to achieve its aim. However, taking part in this research is entirely voluntary. It is up to you to decide whether or not take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and to withdraw any unprocessed data.

#### **What will happen to me if I take part?**

If you decide to participate you will be invited to take part in a semi-structured interview which will be audio-recorded with your authorisation. Each interview will be carried out at professional or business locations and it will not last more than 30 minutes.

#### **What are the possible disadvantages and risks of taking part?**

There is no apparent potential risk to participants and there are no costs involved in taking part.

### **What are the possible benefits of taking part?**

If you decide to take part you will be contributing with your knowledge and information to provide a better understanding of the relationship between planning process and environmental assessment procedures in the scope of major sport tourism events.

### **Will what I say in this study be kept confidential?**

All information collected during the interview will be kept strictly confidential. This study respects your confidentiality subject to legal limitations. It protects any commercially sensitive information but since some interviewees may be identifiable from the information provided, this aspect of the study is also subject to the standard legal limitations. All data collected during the field studies will be transferred on completion to Oxford Brookes University for safe storage for up to 5 years.

### **What should I do if I want to take part?**

Please feel free to email me on [gspereira@brookes.ac.uk](mailto:gspereira@brookes.ac.uk) to confirm your interest. I can then arrange a convenient appointment for you.

### **What will happen to the results of the research study?**

The results of the research will be published in my thesis and also in conference and journal articles.

### **Who is organising and funding the research?**

I am conducting this research as a PhD researcher at Oxford Brookes University, School of the Built Environment, Department of Planning. This research is being funded by CAPES Foundation, a research agency under the Ministry of Education in Brazil.

### **Who has reviewed the study?**

This research has been approved by the University Research Ethics Committee, Oxford Brookes University.

### **Contact for further information**

If you have any questions regarding this research, please contact:

Ms. Gisele Silva Pereira

Email address: [gspereira@brookes.ac.uk](mailto:gspereira@brookes.ac.uk)

Telephone number: +44 (0) 1865 483412 or  
+44 (0) 7789623212

Or Dr.-Ing. Robin Ganser (my supervisor):

Email address: [ganser@brookes.ac.uk](mailto:ganser@brookes.ac.uk)

Telephone number: +44 (0) 1865483437

Or Dr. Graham Wood (my second supervisor)

Email address: [gjwood@brookes.ac.uk](mailto:gjwood@brookes.ac.uk)

Telephone number: +44 (0) 1865 483942

If you still have any concerns about the way in which the study has been conducted, please contact the Chair of the University Research Ethics Committee on [ethics@brookes.ac.uk](mailto:ethics@brookes.ac.uk).

Thank you for taking time to read the information sheet.

## **APPENDIX C**

### **FOLHA DE INFORMAÇÃO AOS PARTICIPANTES**

**Título da Pesquisa:** Avaliação de impacto ambiental (EIA/AAE) e processos de planejamento de mega eventos esportivos: uma análise comparativa entre as Olimpíadas de Londres em 2012 e os Jogos Pan Americanos do Rio de Janeiro em 2007.

O senhor(a) foi convidado(a) a participar de uma pesquisa de doutorado. É importante que o senhor(a) entenda o porquê da pesquisa estar sendo feita e o que a mesma envolve. Por isso, por favor, leia atentamente as informações abaixo.

#### **Qual é o propósito do estudo?**

Esta pesquisa é parte de um estudo de doutorado que está sendo conduzido por Gisele Silva Pereira. O objetivo deste estudo é estabelecer uma análise comparativa entre processos de planejamento e procedimentos de avaliação de impacto ambiental no contexto de mega-eventos esportivos no Reino Unido e Brasil. Os mega-eventos escolhidos como estudos de caso para esta investigação são os Jogos Olímpicos de Londres 2012 e os Jogos Pan Americanos do Rio de Janeiro 2007. Com o propósito de atingir tal objetivo, entrevistas serão conduzidas com atores-chave de ambos os países.

#### **Por que eu fui convidado a participar?**

O senhor(a) foi convidado(a) a participar deste estudo por haver sido identificado como um ator-chave, o que significa que o senhor(a) pode ter informações importantes e opiniões que poderão me ajudar a atingir o objetivo desta investigação.

#### **Quais são os possíveis benefícios de participar?**

Com sua participação, o senhor(a) contribuirá com seu conhecimento e informações, os quais possibilitarão um melhor entendimento da relação entre processo de planejamento e procedimentos de avaliação de impacto ambiental no âmbito de mega-eventos esportivos.

#### **O que eu disser será mantido confidencial?**

Todas as informações coletadas durante as entrevistas serão mantidas estritamente confidenciais. Todos os dados coletados durante o trabalho de campo realizado no Brasil serão transferidos em completo para a Oxford Brookes University, onde ficarão armazenados em segurança pelo período de cinco anos.

#### **O que acontecerá com os resultados da pesquisa?**

Os resultados da pesquisa serão publicados na minha tese de doutorado e em publicações decorrentes da mesma em conferências e jornais acadêmicos.

**Quem está organizando e financiando a pesquisa?**

Eu estou conduzindo esta pesquisa como estudante de doutorado na Oxford Brookes University, School of the Built Environment, Department of Planning. Esta pesquisa está sendo financiada pela Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), uma agência de fomento a pesquisa vinculada ao Ministério da Educação no Brasil.

**Quem revisou o estudo?**

Esta pesquisa foi aprovada pelo Comitê de Ética em Pesquisas da Oxford Brookes University.

**Contato para maiores informações:**

Gisele Silva Pereira – gspereira@brookes.ac.uk - +44 (0) 7789623212 (UK) – 53 32381021 (BR)

Robin Ganser (orientador) – ganser@brookes.ac.uk - +44 (0) 1865 483437

Graham Wood (orientador) – gjwood@brookes.ac.uk - +44 (0) 1865 483942

Obrigada por ler a folha de informação aos participantes.

## APPENDIX D

### CONSENT FORM

**Full title of Project:** Environmental impact assessment (EIA/SEA) and the planning processes of major sports events: a comparative analysis between the London 2012 Olympic Games and the Rio 2007 Pan American Games.

**Name, position and contact address of Researcher**

Gisele Silva Pereira, PhD researcher, +44(0)7789623212, +44(0)1865483412  
Oxford Brookes University, School of the Built Environment, Department of Planning,  
Headington Campus, Gipsy Lane, Oxford, UK, OX3 0BP

**Please initial  
box**

1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason.
3. I agree to take part in the above study.

☐☐☐

**Please tick box**

**Yes**

**No**

4. I agree to the interview being audio recorded
5. I agree to the use of anonymised quotes in publications

☐☐☐☐

Name of Participant

Date

Signature

Gisele Silva Pereira

Name of Researcher

Date

Signature

## APPENDIX E

### TERMO DE CONSENTIMENTO

**Título da Pesquisa:** Avaliação de impacto ambiental (EIA/AAE) e processos de planejamento de mega eventos esportivos: uma análise comparativa entre as Olimpíadas de Londres em 2012 e os Jogos Pan Americanos do Rio de Janeiro em 2007.

**Nome, função e endereço de contato da pesquisadora:**

Gisele Silva Pereira, doutoranda, +55 53 32381021, +55 53 84470679, +44(0)7789623212, +44(0)1865483412, Oxford Brookes University, School of the Built Environment, Department of Planning, Headington Campus, Gipsy Lane, Oxford, UK, OX3 0BP

**Por favor,  
marque**

2. Eu confirmo que entendi a folha de informação aos participantes relativa ao estudo acima mencionado e que tive a oportunidade de fazer perguntas. ☐
3. Eu entendo que minha participação é voluntária e que eu posso desistir a qualquer momento sem apresentar qualquer razão. ☐
3. Eu concordo em participar do estudo. ☐

**Por favor,  
marque**

**Sim**

**Não**

4. Eu concordo que a entrevista seja gravada.

☐☐

Nome do(a) entrevistado(a)

Data

Assinatura

Gisele Silva Pereira

Nome da Pesquisadora

Data

Assinatura